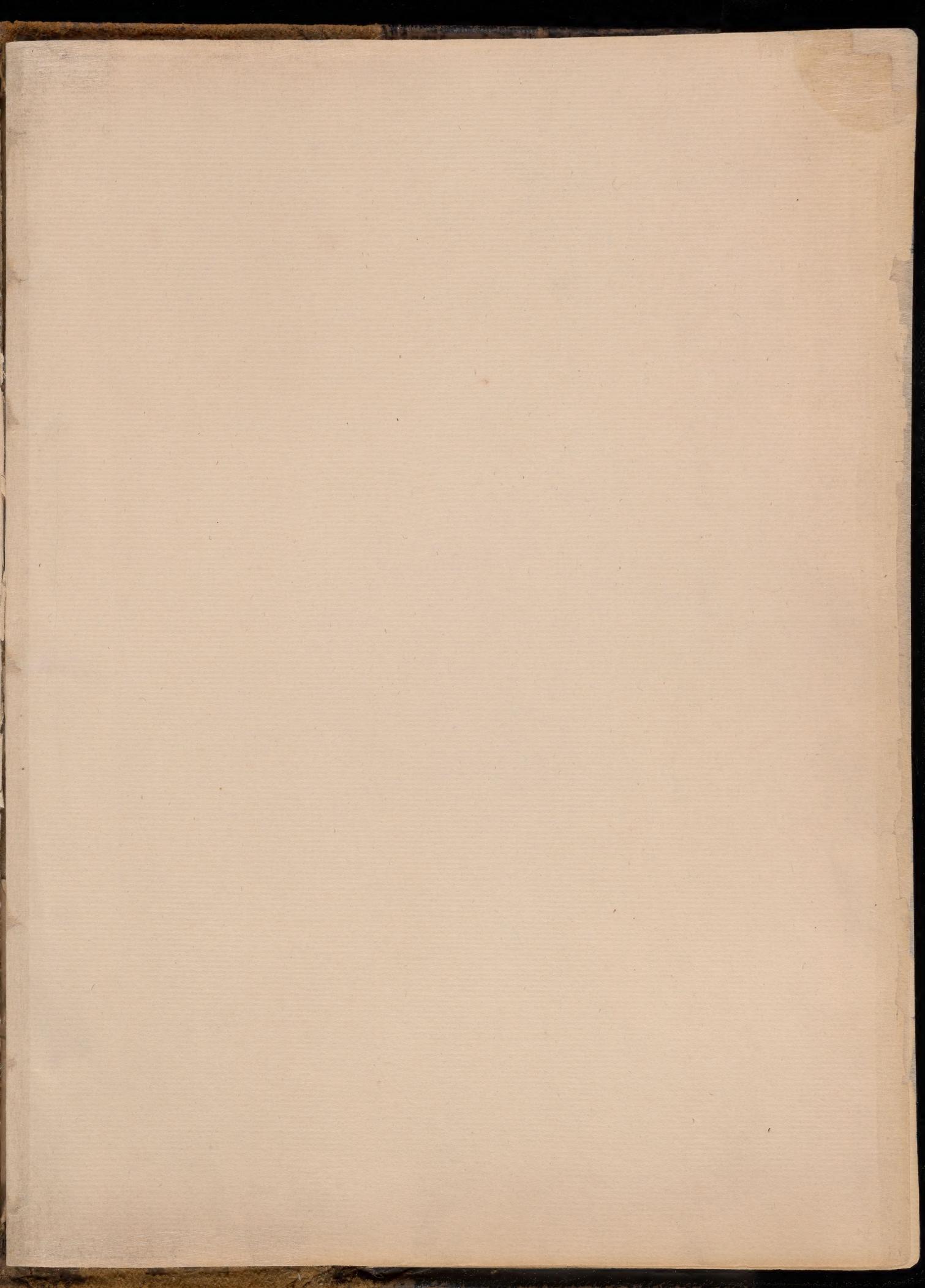
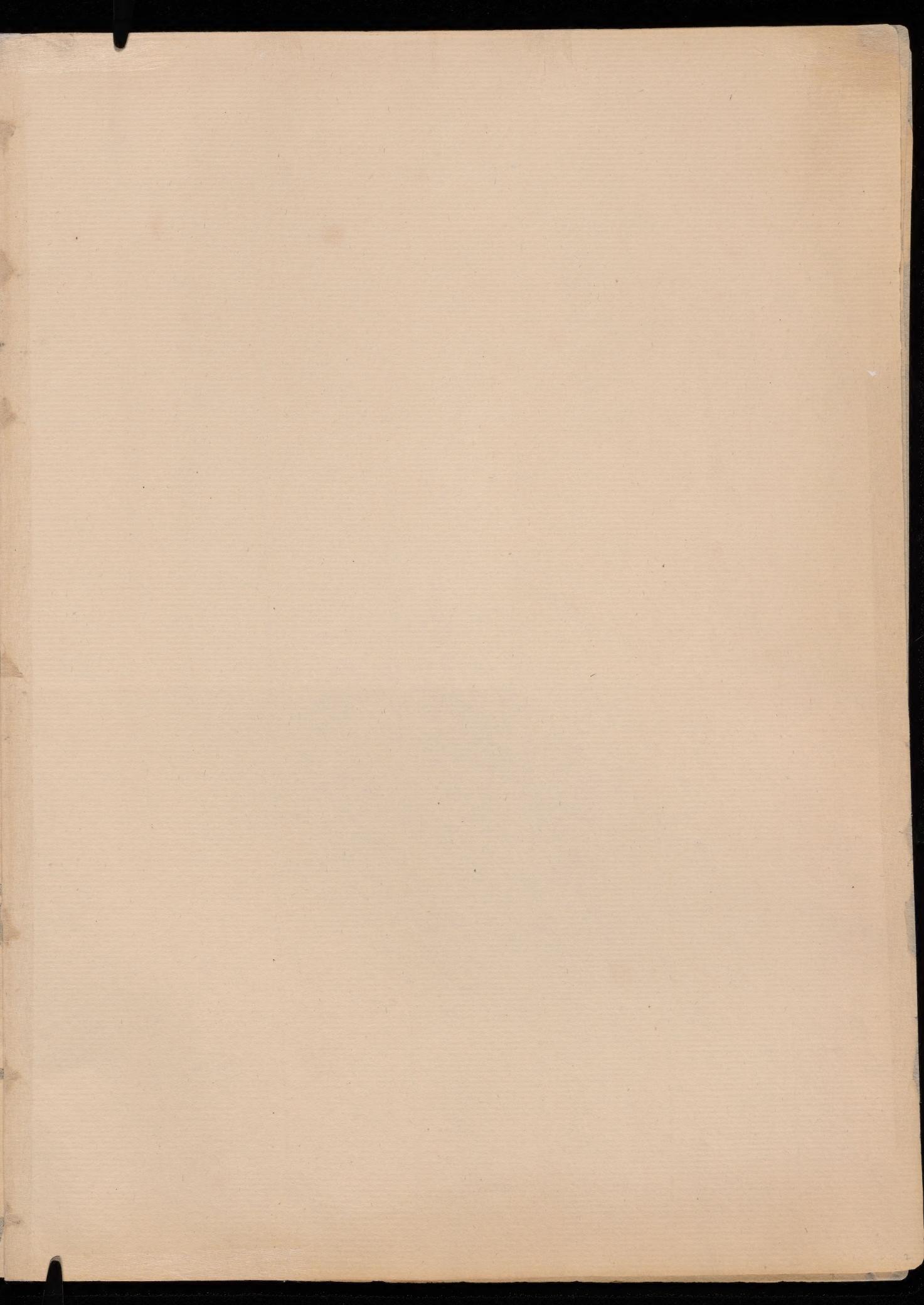
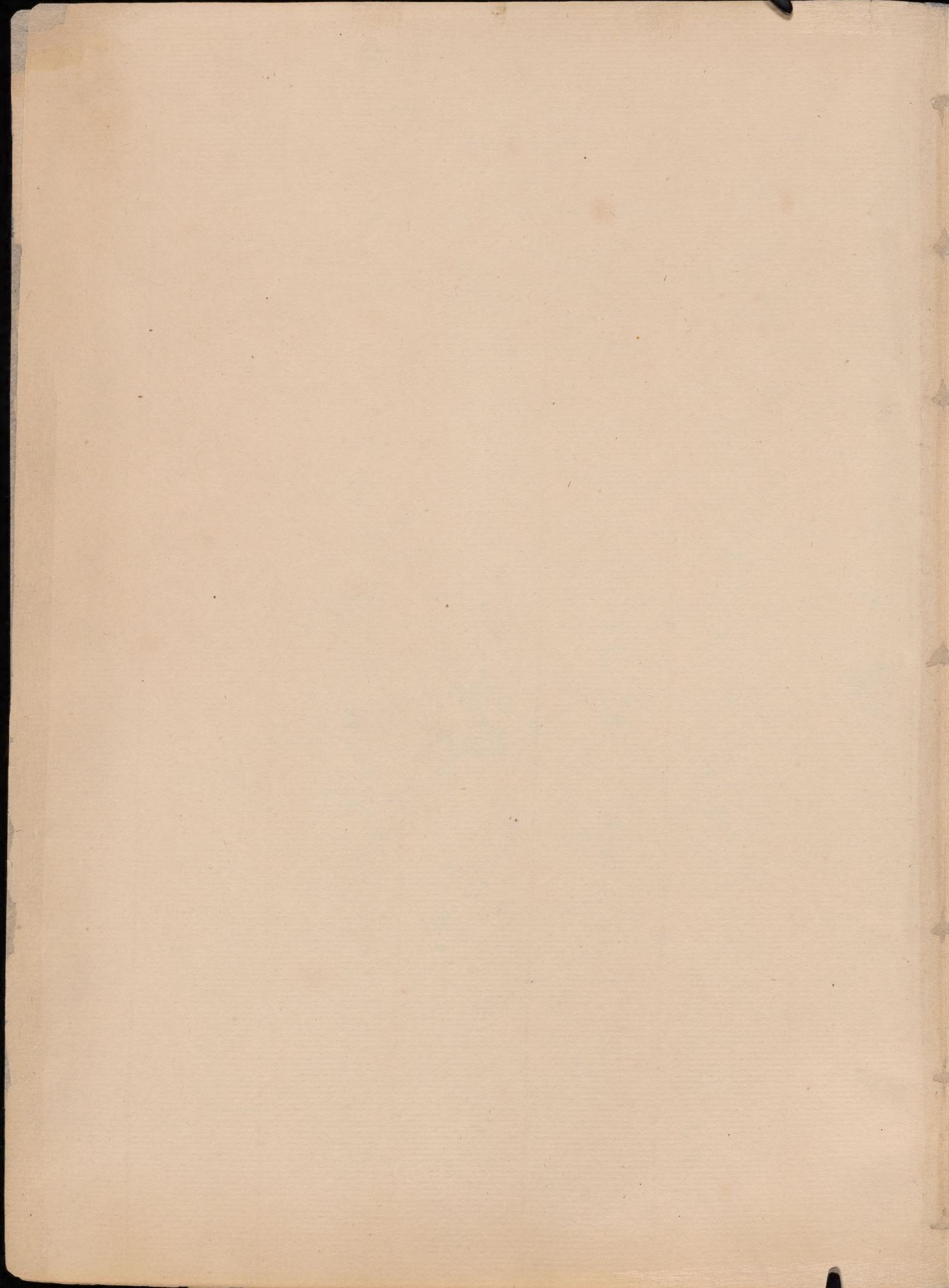
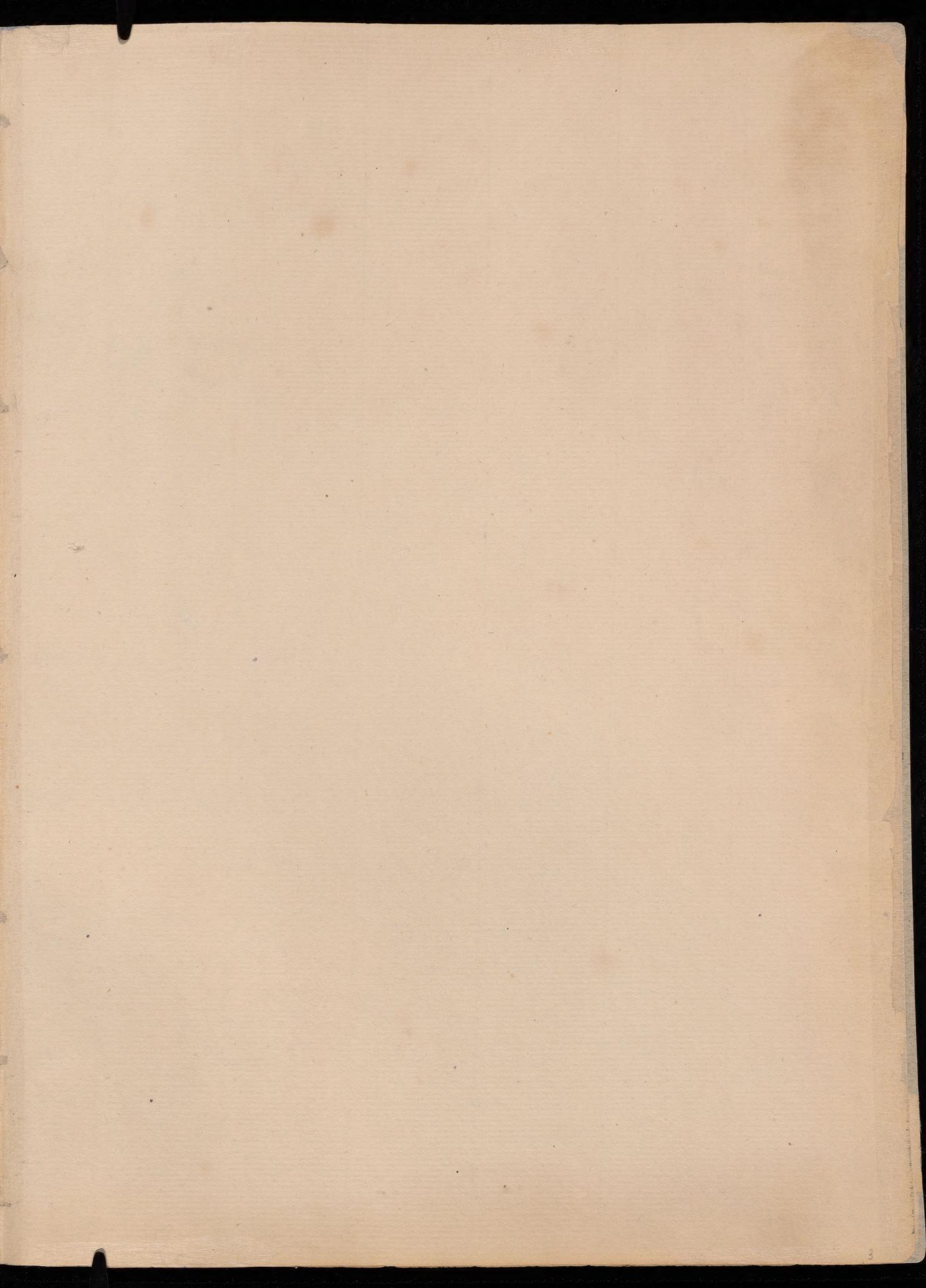


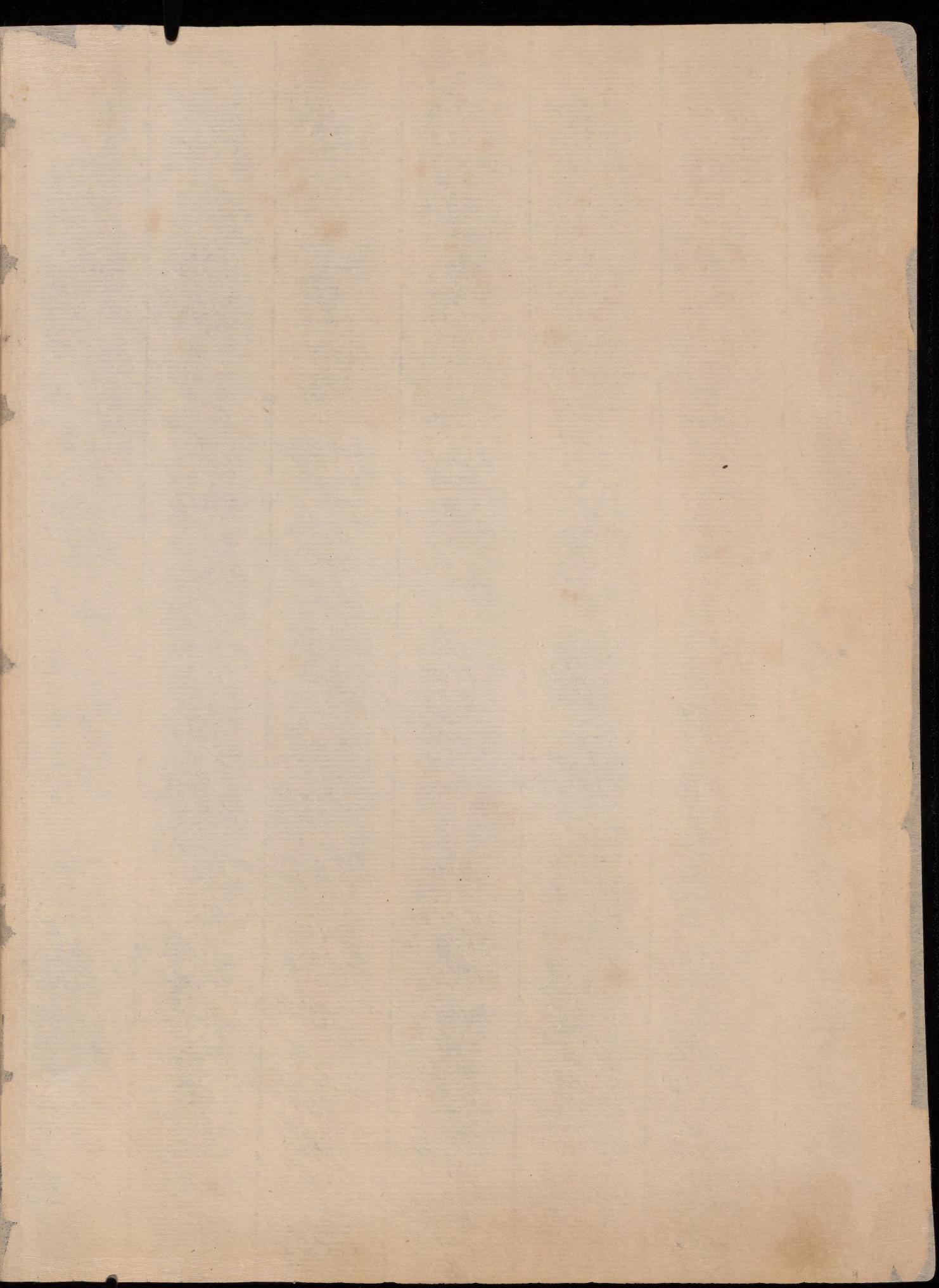
- 1 J. Devereux
2 S. Lambert
3 N. Bauditch
4 D. L. Pickman
5 S. L. Pickman
6 G. Ropes
7 G. Burchin
8 J. Briggs
9 G. Nichols
10 L. Dana

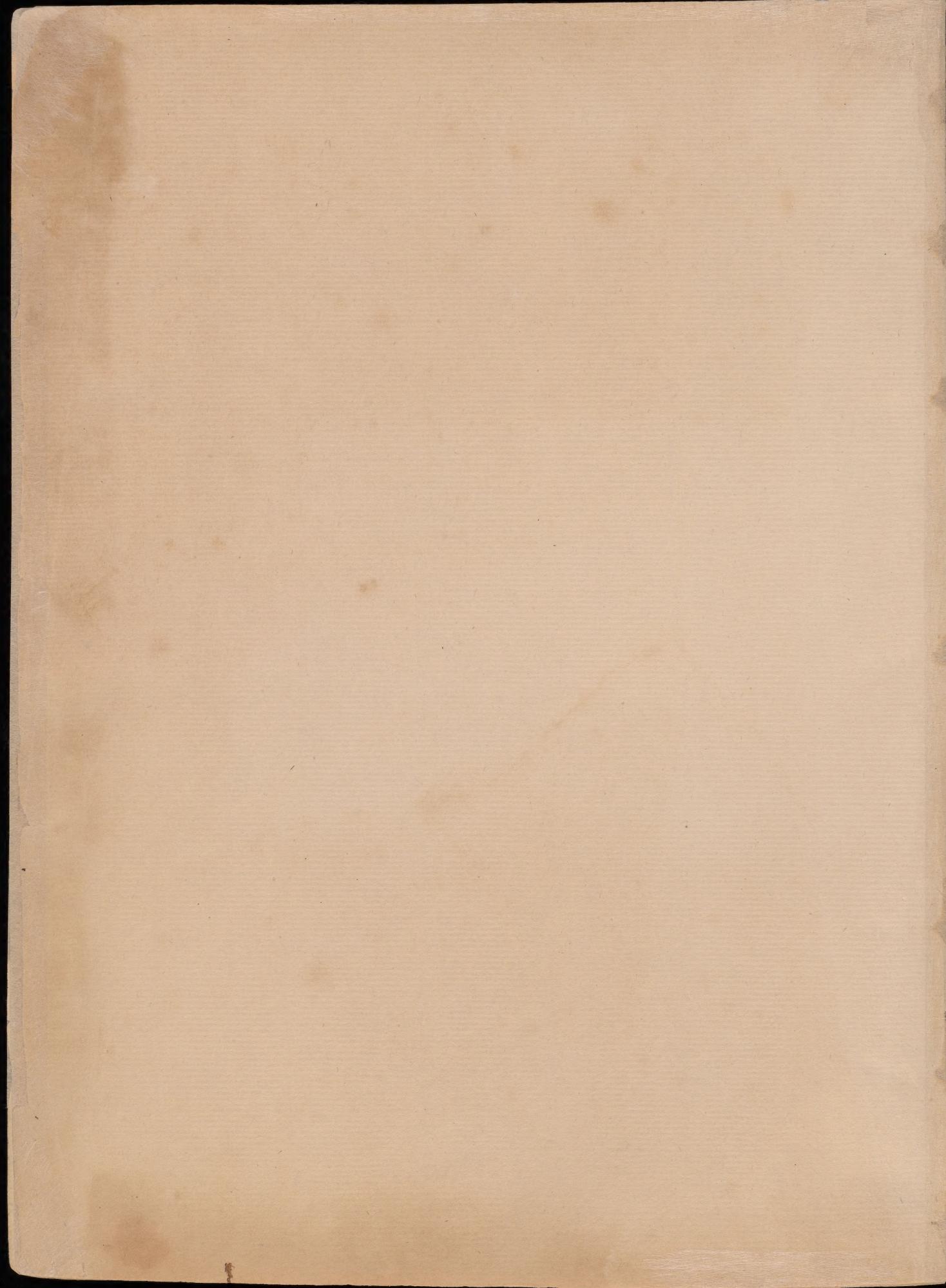


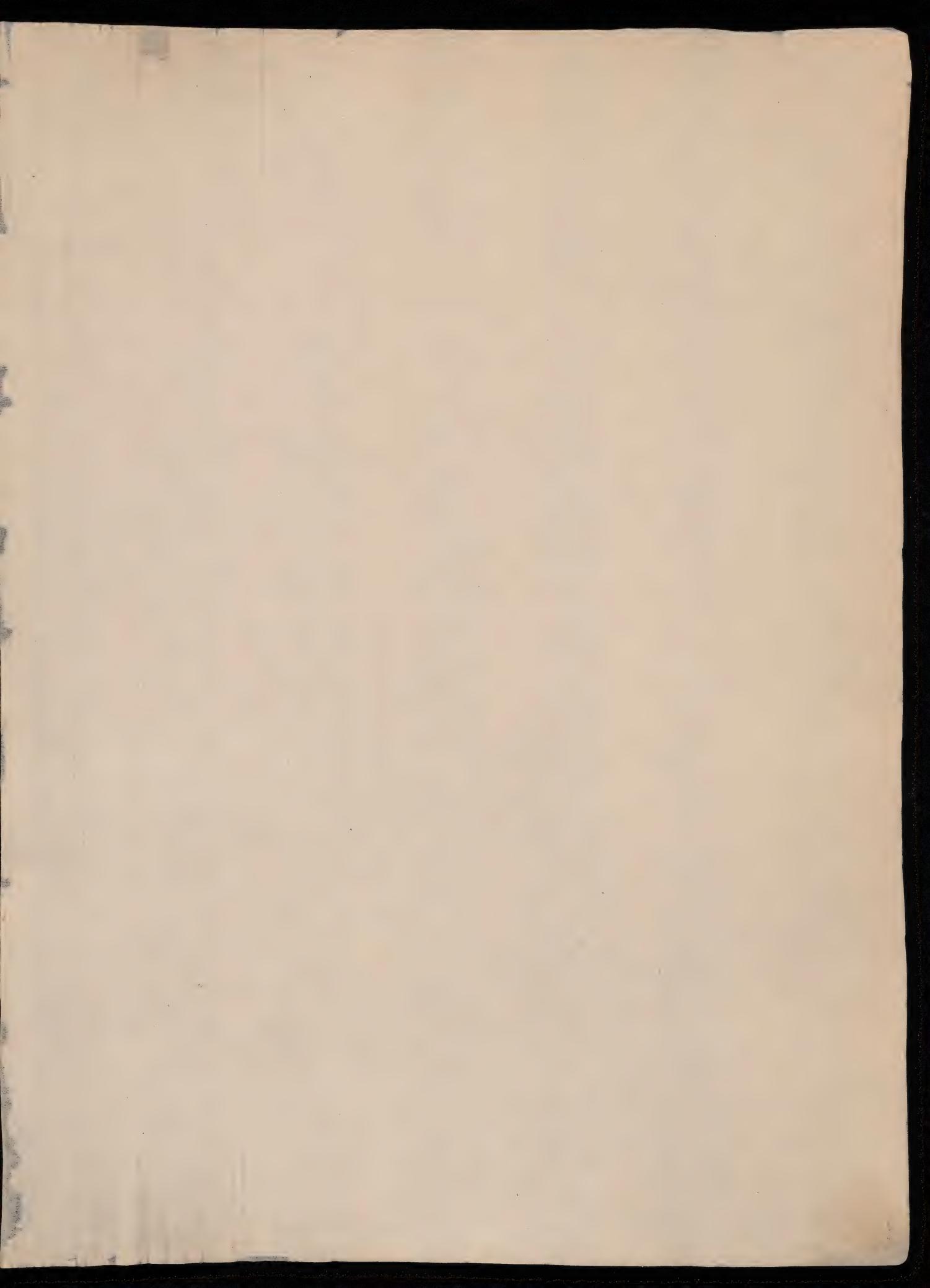


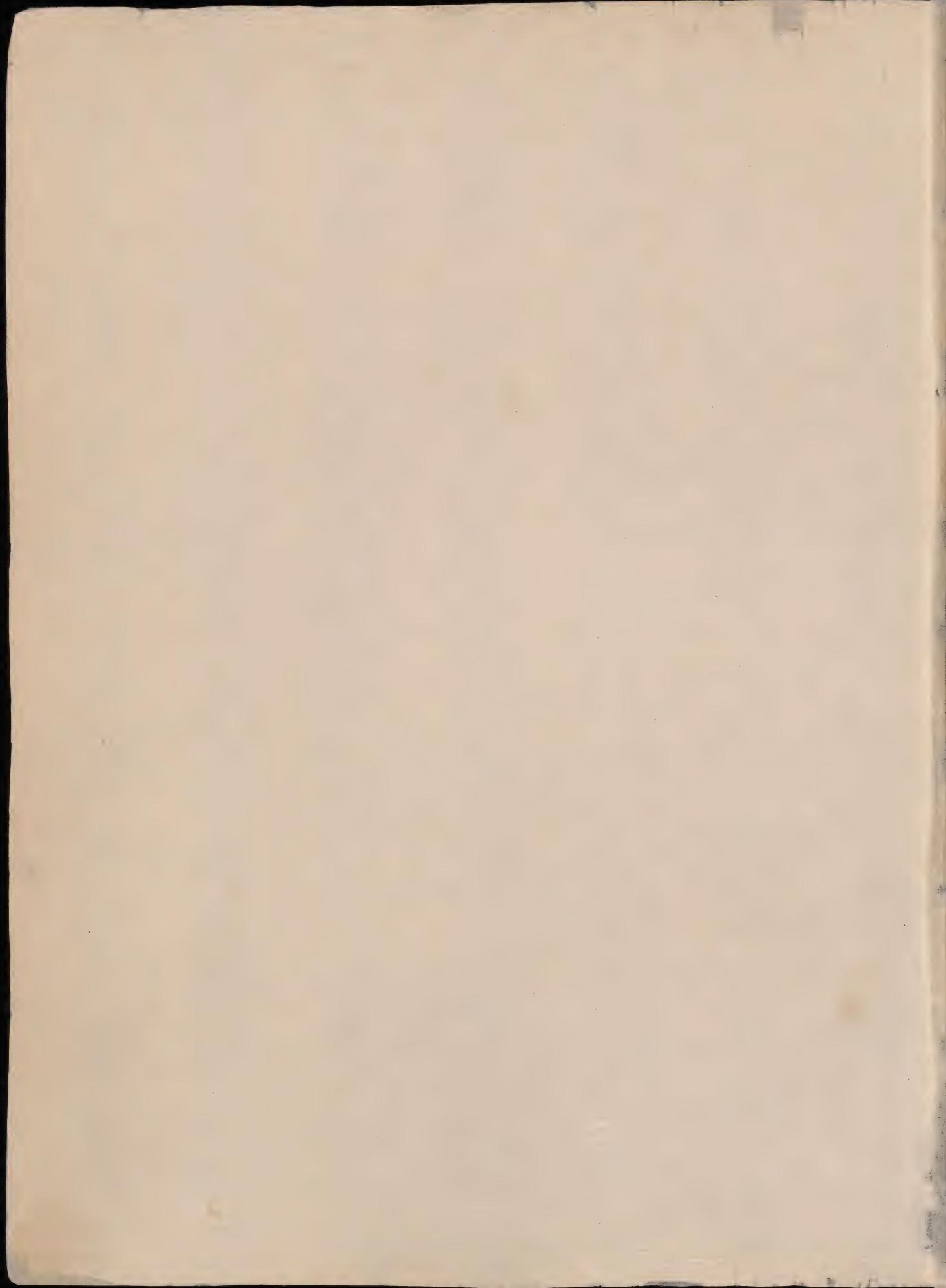












James Devereux's Journal in the Ship Franklin from
Salem to Batavia, & Japan and Back. *See*

Proceed from Boston towards Batavia; in the passage came in sight of the Island St. Anthony (Page 7). Observe the Lat. of the Island of St. Paul 37° 52' S. (Page 21) the Error of Moore in the Lat. of this place being 21 miles, the longitude of the Island was observed 77° 42' E. after the Straits of Sunda. find a current setting Westerly 2 knots per hour, 16 hours out of 24.

Set Sail from Batavia towards Japan; Remarks on a bank at the Entrance of the Straits of Bawean, wrongly marked on the Chart. Important remarks on the Passage E. of the Seven Islands, not noted in the Directory (Page 278 65). Remarks on the latitudes of the Islands near Pulo Pisang (in Pages 278 65). See Pulo Condore (page 29). Piscadore 36° (page 31) Coast of China Page 31. At Japan page 31. Observations on the Soundings & Currents throughout this passage. Depart from Japan to Batavia: Observe the Latitude of the Island of Raquet Aruzas 25° 39' N. (Pages 330 67.), being Situated 40 miles North of its place on the Charts. - See Pulo Condore & adjacent Islands pages 338 67. Remarks on Pulo Aore &c. (Pages 357 67). Enter the Straights of Grespar arrive at Batavia, in 23 from Japan. In all this passage, are given various remarks on the Soundings & Currents, Set Sail from Batavia for Boston, observe the Stream Rocks in the Straits of Sunda (Page 398 68) & - notings on Cape Sagulias (Page 49.). Arrive at Boston (Page 61).

Directions for Sailing from Batavia to Japan, given by the Dutch East India Company to Capt. Devereux, for his Government. (Page 69) Instructions respecting the formalities to be used at Japan 72
Weights & Coins at Japan - 73 -

Samuel Lambert's Journal in the Ship Adventure, from
Salem to Copenhagen, Calcutta & Back. *See*

Take a departure from Cape Ann (Page 77). Make the Orkney Isl. (Page 83) Fair Island, Coast of Norway, Isl. Jutland Coast of Sweden; Arrive at Copenhagen (Page 83). Set Sail from Copenhagen, come to Anchor at Elsinore: Depart from that place, make anchor & Scow high, (Page 85) Make Fair Island (Page 87). Come in sight of the Caps de Verds, viz St. Nicholas, St. Iago & Fog. (Page 91) Several Remarks on the Currents, & some magnetical observations in this tract, (Page 91) Speak with Capt. Donison from Rhode Island (Page 98). Try for soundings on the bank of Cape Sagulias, find no bottom with 120 fathoms. Make the land of Iagernot, soundings along the coast, observations of the variation, currents &c. (Page 111) Arrive at Calcutta (Page 111 & Note 2nd Page 133). Set Sail from Calcutta (Page 113), observe the variation in several places, towards the Equator, Speak with 3 Indians in Long. 85° E (Page 117), meet with a very strong Northerly Current in the Lat. 28° S. Long. 108° (Page 125) Make Cape Sagulias but do not experience a Westerly Current in this tract (Page 127 & note 4 Page 144) Try for soundings when on the Eastern part of the bank of Cape Sagulias. Make St. Helena (Page 131). Get soundings on George Bank (137). Make Cape Ann (Page 139) Many remarks on currents, variation &c. during this passage. — — —

Nath. Bowditch's Journal in the Ship Astraea. from Salem to
Lisbon, Madeira, Manilla & Back. —

Proceed from Salem to Lisbon, remarks in the Latitude of the fort of Cas-
saye and Cape St. Roque. (Page 169). Set sail for Madeira, observe the Vari-
ation of the Compass near Lisbon & Madeira, & on several places on the passage.

In proceeding from Madeira to India, see the Is^l of Palma (Page 173). ~~the Is^l of Palma~~
the Is^l of Trinidat (Page 179). Enter the Straits of Sunda (Page 191) pro-
ceed from thence through the Straits of Banca (193) pass in sight of Pul^o
Condore (195) Pul^o Saputa (195) & arrive at Manilla. Soundings. Variations ob-
served in that tract.

Take our departure from Goat Island (199). pass in sight of Pul^o Condore (199)
pass the Straits of Banca & Sunda 201. get soundings on Cape Sagulus (213) ex-
perience a strong current, setting to the westw^d in the Passage from
the Cape of Good Hope to Salem.

Remarks at Lisbon —————— page —————— 229 to 230

Do —————— Madeira —————— D —————— 231. —

Memor in the latitude & longitude of the Island of Trin^o 232. 233
error of 2° in the longitude of that Island, given by Moore

Latitude & longitude of the Islands of Martin Vaz near Trinidat — 233.

Harbour Journal at Manilla —————— 234 &c

Coin Weights & Measures at Manilla —————— 236

Numerical Characters used by the Chinese —————— 239 to 240

Magnetical Observations taken on board the Ship Henry
in her passages to & from the Island of Formosa —————— 241. 242

Soundings on Brown's bank —————— 243.

Latitude & Longitudes of several places in the Island of Bon-
aibo, Straits of Sunda, Banca, Chinese Sea, Straits of
Malacca, & Mendos, Alicant in Spain, & Cape Ann. Sights — 243 to 245

Dudley L. Pickman's Journal in the Belisarius, from Salem to Teneriffe & back, from thence to Tranquebar & Back. —

Proceed from Salem towards Teneriffe, Make Madeira (251) Palma (251) come to anchor at Teneriffe (251).

Got underway at Grotava (253) & Proceed for Salem; Get soundings in Lat $43^{\circ} 3' N$ Long. $65^{\circ} W.$ (257) Arrive at Salem (259) usual remarks on weather, winds &c. in both passages.

Set out again from Salem to East Indies (261) Make Ceylon (269) Coast of Coromandel (281) ~~is. & Seven Pagodas~~ & Seven Pagodas (281) Came too at Madras off Fort George (281) Customs, at arrival at Madras (281.)

Proceed from Madras to ^{ward} Tranquebar (283) Make Seven Pagodas and Pondicherry (283) Come to anchor at Tranquebar (283) customs in that place (283) Remarks on the currents in the passages,

Get underway at Tranquebar for Salem (285), See Nagore Pagodas & Ceylon (285). See Breakers (291). (In 28 S. 44 E) Make land of Africa (291.). Find current setting strong to the Southward & Westward, make Cape Agulhas (293) Make St. Helena (295). Remarks with the Thermometers on the comparative temperature of the air & water (303) See South Shoal of Nantucket, various soundings (303) make Hatchers $36^{\circ} 4^{\prime} C$ and arrive at Salem 303. ~~arr~~

N^o 5

Dudley Pickman's Journal. in the Ship Anna. from Boston to Sumatra & Back. In

Set Sail Jan 9th 1801 from Boston bound to Sumatra (305). Make Fayal & Pico (309) tried Goulds log (309). Strong Southerly Current in Lat^t 34° N Long. 29° W. (341) Make Isle Gal, Mayo, & St Jago (313) Magnetic Observations. Strong S. Current Lat. 37° S. Long. 16° E. (321). Spoke the Ship Nottingham (323) who thought they had seen the Telemagree Shoal (see Note page 364).

Make Engano, Sumatra, Sugar Loaf Hill (in^o), Rat Island, Buffalo Point &c. (331) Remarks on Bencoolen road (331) Came too at Bencoolen May 25th 1801 (331). May 26. Set sail from Bencoolen towards Nattal (333.) Soundings. made N. Poggy Isl^o, Poce or Good Fortune Isl^o, remarks on its Latitude (333) Palo Lovjo. Licos Isl^o Oijong Mapang, Pulo Batas or Batang, Pulo Samong Lat. 6° 24' N. its Latitude wrongly marked in the Charts (333). Naratua point (333). Came too at Nattal, The Flag Staff being in the Lat^t of 36° N (333.)

Jun 2nd 1801

June 8th Set sail from Nattal to Tappanooly (335) Make Palo Mayas Palo Batas, Oijong Caracee, Pulo Samong (335) experience a strong South-ealy Current. June 13th Could not fetch Nattal. bore away for Pulo Samong & came too (335) June 16th Fine land breeze having lost 4 or 5 leagues in 5 days beating; went ashore at Pulo Samong, natives friendly, purchased Fowls &c. procured Oysters, from Oyster Rock (335.) June 16. Fine land breeze. got under way & 17th Anchored in Tappanooly (335 N) (335). various remarks. July 10th Set out from Tappanooly for Nattal & Padung (337). Make Palo Clys, Zelandy Isl^o Oijong Caracee. Anchor at Nattal (337).

July 11. Proceed from Nattal (337) Struck a Shout of Coral Rock, make Pulo Samong, Pulo Saloo, Part of Pulo Batas, saw Breakers (337) not laid down in the Charts. Make Mount Ophir, Licoi Isl^o, chart very unsatisfactory, Make Padung, Pulo Pisung in 54° S Lat, came too there. Many useful remarks on the currents &c.

July 22. 1801 Set out from Padung for Boston (339) take departure from Mount Pooping, experience a strong S. Current in the Mozambique & round the Cape (345. 347) Make Cape Sagitta & get Soundings (347). Make Gunni's Queen. Table Hill. (347) Soundings Make Ascension (351) Southerly Current 10 N. 32 W. (355). Make Nantucket (347) Soundings. Make Don Never Heade, arrive at Boston. (36) Magnetic Observations & throughout the passage.

Result of Trials of Goulds Patent Logs, proved to be gross Impostion. (363). Very useful Instructions & Directions for the West Coast of Sumatra (364) p

N^o 6.

George Ropes' journal. in the Brig Tukey. from Salem to Africa & Back via West Indies. —

March 29th 1801. Set out from Salem for Senegal (375) Make Peak of Teneriffe (379) Water discoloured on a bank marked on the Charts (381) Make the land about Senegal & come to there, remarks on the Anchorage at that place (381) (387) Remarks on Cape Verd (382). On Passage from Goree to the River Gambia.

Passage from Goree to the Cape De Verd (383) Experience a Southwesterly current (383). Take a departure from Cape Verd. Make Bonavista (383). St. Jago (383). Remarks on the late. of Bonavista (Note 2^o page 389).

Error in Some Books in the late. of St Jago (Note 3^o page 390) Make Dominica (385) Appearances of the land of St Bartholomew's & Eustatia (391) Remarks on Pafiotone in Guadoupe (391)

N^o 7.

George Burchmore's Journal in the Ship Belis aria Sam^t Skerry Master. from Salem to Sumatra & Back. On

Set sail from Salem Aug. 30th 1801. (Page 395) experience a Northerly Current in Lat 9° N. Long. 23° W & a Southerly Current in 10° I. 30° W. (503) make the Islands of Sri Lanka & Cunha (405). Make Pulau Nyaus Moreton & come to anchor in Tappanooey (415). Set sail from Tappanooey. see-breakers (415) make Hog Island, Bariack & Coco Islands. (417) Observe, in the latitude of 3.1° N when the Coco bore E. N. E. 2 or 3 miles distant & the N.W. part of Hog Island E. S. 5 leagues distant; so that the Coco bear West Northerly from Hog Island, instead of N. E. as in most of the late English Charts. Anchored at Muckie (417). Set sail from Muckie past to the Northw^o of Hog Isl^o (417) experience a Northerly Current in Lat. 2° N. Long 93° E (419) make Rodriguez & the Isle of France (423). Came to anchor below the Buoys of Port NW. (425). Set sail from the Isle of France (425) make the land off Cape de gallas & get sound 76 fathoms experience a fresh gale. & a westerly Current (427) get soundings on the coast (437) make Cape Cody, Cape Arow, & come to anchor in Salem July 12th 1802 (439) No Magnetic Observations in this Journal.

Directions for the West Coast of Sumatra by - Weatherall of the Ship Louis of Calcutta (441). Remarks on Sailing down the Coast of Sumatra by George Burchmore. lat. of Muckie 3.28° N (446. 1^o) Latitude of the Southern part of Nyaus 3.35° N erroneously laid down on the Charts (447. 1^o) remarks on the Passage between the Coco & Hog Island (446. 1^o).

N^o 8

Jeremiah Briggs's Journal in the Ship America from Salem to Sumatra & Back.

Take a departure from Cape Ann, lights (447) make the Islands of Tristan & Acension (455), make Pulo Atjap. Experience a strong Southerly Current (467) make Hog Island & the Cows & Cape Beliz, come to anchor in Muskie (469).

Set sail from Muskie, pass to the Northwest of Hog Island (471) Make th land to the East of the Cape Sagarias, experience a strong Southerly Current (479) make Cape Sagarias & get soundings several times, make Table Mount (481) make St. Helena (483) Make the Land of Neversink (491) Remarks on the land &c on the coast of Sumatra, Latitude of a Shoal 3° 33' N bearing N.E. W. from Muskie 3 leagues dist. (495) Observed in the Latitude of 3° 1' N when the North part of Hog Island bore W. & S distant for 8 leagues.

N^o 9

George Nichols's Journal in the Ship Active from Salem to East Indies via England.

Take a departure from Cape Ann (499) Sounding on the bank of Newfound land (499). Sounding on the Irish Channel (501), make Cape Clear other places & arrive at Liverpool (503) Proceed from Liverpool up the Channel to London (505). Proceed from London, take a departure from the Lands End (507), make Madura, anchor in Fam-hale (511).

Set sail from Funchal, make Palma & Furos (511) take many magnetic Observations in the passage to India. Make the Island of St. Paul (523), Make Adonis Peak (529.) come to anchor in Columbo (529). Set sail from Columbo for Pondicherry & Madras (529). Various remarks on the currents in these passages.

Set sail from Madras for America (531) get soundings on Sagal-las bank (539) experience a strong Southerly Current there (539). Get soundings at the Entrance of the South Channel, make Cape Cod Cape Ann, & arrive at Salem (551.)

Interesting remarks upon the Voyage (554) & description of Funchal, (555) on the Island of St. Paul (557) on Columbo, Pondicherry & Madras (560)

Currencies weights & measures at Columbo and Madras (567).

911

N^o. 10

Luther Dana, in the Ship Recovery from Salem to
Mocha & Back. ~~and~~ ^{and} ~~and~~

Set Sail from Salem, get soundings in 6 fathoms on St George's Bank (571) make Bonavista (575) remarks on the Latona Rock (575) Take a new departure from Mayo (575) make Trinidat (579) Cape Sagittarius (573) get various soundings on Sagittarius bank (583) Observe the Water discoloured in the Meridian of the Temaque Shoal (583) Experience a strong current from 14 to 2° S. & 7° E. (589) make the Island of Socotra & come to anchor in Mocha (593) Set Sail from Mocha (595) make Cape St. Peter & Cape Guardafui (595) get soundings on Sagittarius bank (605) make Cape Sagittarius (605) get soundings on George Bank (615) arrive at Salem (615) various remarks on the currents in these passages.

Remarks on Socotra, Island Two Brothers, Cape Guardafui (617) Cape Felix Cape Anthony (618) Observed Cape Babemondel bearing N.W.W. 8 or 9 leagues distant when in the Latitude of 12° 28' N. (618) course sailed in going from that - Cape to Mocha (618) Appearance of Cape Babemondel as you come from the W. (620) Directions for passing the Straits of Babemondel & going from them to Mocha (621) Remarks on the Island of Abdcuria & a Shoal near it (622) Observed ⁱⁿ 12° 43' N. when N.E. part Socotra bore S. S.W. distant 5 leagues. ~~and~~

The preceding table of contents was drawn up by Nath^r
Browditch, Inspector of the journals for the year 1804.

Presented to the Society ¹⁶³ January 1. 1802.

(No. 3)

Journal

From Salem to Lisbon, Madeira, Manila and back.
in the Ship Aslwne, Henry Prince Master:
kept by Nathaniel Bruditch for the use of the
EAST INDIA MARINE SOCIETY.

AT a Meeting of the **EAST INDIA MARINE SOCIETY**, at their Hall, on Wednesday evening, November 4, 1801, it was unanimously voted, That, in order to promote one great object of their institution, which was the acquiring of nautical knowledge, a Committee should be chosen to procure **BLANK JOURNALS** for the use of the Society; and that each Member bound to sea should be furnished with one of them, to be returned at the end of his voyage, with a regular diary of the winds, weather, and remarkable occurrences, during his voyage, arranged in such manner as the Committee should direct.

Conformable to the above vote, a Committee was chosen; who, having procured **JOURNALS** of the present form, request the Members to fill up the blanks according to the following

DIRECTIONS.

THE blank at the top is to be filled up with the names of the Master, and of the person keeping the Journal, the name of the ship, and the places nearest to the ship on the days given in that page. As for example: after passing the Cape de Verds, say, from the Cape de Verds towards the Cape of Good Hope.

In the 1st column of the Journal must be marked the day of the month; in the 2d, the course made good on that day; in the 3d, the distance sailed; in the 4th, the latitude at noon by account; in the 5th, the latitude by observation; in the 6th, the longitude by account; in the 7th, the longitude by observation reduced to noon by means of the log, or a time-keeper.

When the variation is observed, it is to be marked in the 10th column, the latitude and longitude in at the time of taking the observation being calculated from the observed latitude and longitude at noon by means of the log, and marked in the 8th and 9th columns. When the variation is observed both in the evening and morning of the same sea-day, the evening observation must be marked first; and it may be also noted whether the observation was by an azimuth or amplitude, by marking the former *az.* and the latter *am.*

The winds are to be marked in the 11th column, two or three times each day, placing them regularly beneath each other.

In the right hand column must be noted, the general state of the weather, winds, currents, bearings of capes, islands, &c. with their estimated distances, and any other remarks that may be useful to navigators.

When an opportunity offers to take any observations for determining the latitude or longitude of any remarkable place or point of land, it should be carefully attended to; and, for the satisfaction of those who may examine the Journals, it will be proper to give a detail of the observations. Thus, if the observation was taken for determining the latitude by the meridian altitude of the Sun, it would be proper to note the altitude of the Sun's lower limb, taken from the quadrant, his declination, and the bearing and distance of the place at the time of observation. Should the place not be in sight at the time of taking the meridian observation, it would be proper to note the course and distance made good by the ship, between the times of taking the meridian observation and observing the bearing of the land. A particular attention to observations of this kind will probably be the means of procuring a valuable collection of useful information. If the latitude or longitude observed should differ from any late books or charts, it would be proper to note it. In case any general remarks on the wind, weather, &c. experienced in the passages, should occur to the Journalist, he is requested to arrange them in the pages allotted for that purpose at the end of the Journal. A blank page is also assigned for an account of the coin, weights and measures of the several places touched at in the voyage; and it is hoped that care will be taken in acquiring information on these subjects. Any remarks on the commerce of the different places touched at in the voyage, with the imports, exports, and manner of transacting business, will be of public utility. Whatever is singular in the manners, customs, dress, ornaments, &c. of any people, is deserving of notice.

There should be collected, for the Museum, specimens of various kinds of vegetable substances, earths, minerals, ores, metals, volcanic substances, &c. There should also be preserved such parts of birds, insects, fish, &c. as serve most easily to distinguish them, and if no part can be preserved, a description of any that are remarkable may be given. Inquiry should be made for any remarkable books in use, among any of the eastern nations, with their subjects, dates and titles. Articles of the dress and ornaments of any nation, with the images and objects of religious devotion, should be procured.

Nathaniel Bowditch's Journal, in the Ship Astrea

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
March									
27	East	87	North 42.48	North 42.13	West 68.06	West 68.06	North 01	West 01	West 01
28	S. 55° E.	22	42.31		67.42				
29	S. 87° E.	108	42.25	42.24	65.15		42.41	65.42	Az. AM 8.12
30	S. 62° E.	158	41.09	41.04	62.08				
31	S. 80° E.	79	40.50		60.25				
April									
1	S. 79° E.	103	40.31		58.11				
2	East	102	40.30	40.25	55.57	00 54.35	40.21	54.49	Az. AM 11.27
3	N. 74° E.	132	41.2		53.09	51.47			
4	S. 81° E.	67	40.51	41.17	51.42	06. of Ap. 2. 50.20	41.00	50.44	Az. AM 15.9
5	N. 68° E.	111	42.12		49.32	48.10			
6	S. 34° E.	109	41.11		47.31	36. Ap. 2. 46.9			

He. Prince Master, from Salem towards Lisbon.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
S. S. E. S. W. S. E. East.	Fair, wind southerly and variable, at 5 P.M. Capo St. Ann light is bore N. W. by W. per compass, estimated distance 11 leagues.
East. Calm S. by E.	Moderate and Fair. Hazy. Hazy, foggy weather.
S. S. E. Variable N. W. by W.	Foggy. Fine breeze, cloudy. Clear, Pleasant gales.
N. W. W.	Clear, fine breeze.
N. W. S. E. N. N. E.	Fine gales, clear. Light breezes, snow, lightning. Fresh gales, squally, large sea running.
S. by E. West.	More moderate, heavy swell. Rainy.
N. N. E. Variable S. S. E.	Pleasant gales. Moderate. Fresh gales, cloudy.
S. S. E. S. W. W. by S.	Stormy, rainy, squally weather. very sharp lightning and heavy thunder, large sea.
N. N. E. N. E. S. E.	Brisk gales. More moderate, clear. Fine gales.
S. E. S. by W. S.	Brisk gales and cloudy. Rain, squally, double reef'd topsails. Brisk gales, foggy, took in Mizen, Jib, & Mainsail.
West N. N. E. N.	More moderate, foggy. Calm, light airs. Brisk gales, rain.

Nathaniel Bowditch's Journal, in the Ship *Astrea*

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
April 7	159° E.	159	North. 39° 50'	North. ° ° °	West. 44.32.	West: Ob. April 2. 43.10	North. ° ° °	West. ° ° °	West. ° ° °
8	S. 73° E.	118	39.16	40.28 round by moon. 40.16	42.4	40.42	40.20	42.32	Az. A.M. 17.17
9	S. 84° E.	137	40.07	40.05	39.6	37.44			
10	S. 88° E.	110	40.01	40.06	36.43	35.21			
11	East	110	40.06		34.20	Ob. Ap 2. 32.58			
12	N. 71° E.	39	40.17	By double altitudes. 40.33.	33.32	32.46			
13	E. by N.	99	40.53	40.58	31.25	35.7			
14	S. 69° E.	83	40.28	40.27	29.44	29.12.	40.50	30.24	P.M. Az. 23.3
15	N. 65° E.	53	40.49	40.42	28.40	28.8			
16	N. 51° E.	82	41.34	41.41	27.16	26.46	40.55	27.48	P.M. Az. 24.49
17	N. 46° E.	78	42.12	42.23	25.39	25.12			

H. Prince Master, from *Salem* towards *Lisbon*.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
N. N. E.	Fresh gales, rainy.
N. E.	Cloudy.
E. N. E.	Fresh gales, rainy.
S. S. E.	Bright gales, cloudy.
N. W.	Volatile winds & weather, rain, lightning.
	Pleasant breezes, fair weather.
N. W.	Pleasant gales, fine weather.
W.	
W. S. W.	Fine breeze, hazy.
W. by N.	Pleasant gales, hazy.
N. W. by W.	Cloudy.
W.	Fine breezes.
W.	
N. W.	More moderate, hazy.
N. E.	Light air.
N. E. by E.	Volatile, light airs, hazy.
E.	
S. by E.	Fine breezes, cloudy. Took a lunar observation of the O. C.
S. by E.	
S. S. W.	Fine breeze, clear. Took a lunar observation of the O. C.
S. W.	
W.	
N. N. W.	Light winds, pleasant weather.
N. N. W.	Moderate, clear.
N. N. W.	Light airs, cloudy.
N. N. W.	Light airs, variable.
S. by E.	Moderate, rainy.
S. by E.	Fine breeze, clear.
S. S. E.	Moderate, clear, pleasant weather.
S.	Took two lunar observations, and observed the variation.
S. S. E.	
S.	
S. S. W.	Pleasant breezes, and cloudy.

Nathaniel Bowditch's *Journal*, in the Ship *Astrea* Henry

Prince Master, from Salem towards Lisbon.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
S. S. W. S. S. E. by S.	Moderate and clear. Observed the variation by an azimuth.
S. E. by S. Variable S. S. W.	Light winds and variable. In the evening took an observation with the moon and stars, Regulus and Spica, with distances less than 30°; made the ship 3° to the eastward of last observation.
S. S. W. W. L. W. W.	Fresh gales and clear. Rainy. Fresh gales, and clear. Saw a ship steering N. E.
W.	Fine breezes, pleasant.
W. S. W.	More moderate, clear.
S. W. S. by W.	Moderate breezes and pleasant weather. This day took three azimuths; one in the evening with the sun, & two in the morning, with the sun and moon.
S. S. W. Variable N. E.	Light airs and clear. In the evening took a lunar observation with the stars Antares & Spica.
N. N. E.	Fine breezes & pleasant. At 7 A.M. made the rock of Lisboa, bearing port by compass E. N. E. estimated distance 8 leagues. Which allowed as a course sailed, will make the latitude of Cape Roque 38.45 N. and its longitude from yesterdays observation 9.22 W.
N. E. by N.	Pleasant breezes, at 2 P.M. procured a pilot from a fishing boat, and continued standing off and on all night; in the morning found ourselves far enough to windward to fetch in, not being inclined to a calm, we lay off till 11 A.M. when a breeze springing up we stood in and at 2 P.M. came too off Castle Bellene, which bore by compass N. W. distant $\frac{7}{8}$ of a mile, the southern shore of the river being about $\frac{9}{10}$ of a mile distant.
	At noon April 25. 0° 30' Merid. Alt. L. S. 64.41. bearing for dep 8° + 11° 0° 3 Dec. 13.31. Ships latitude 38.39 N. at which time the fort of Corcayo bore N. W. by W. by compass, distant 1 mile: & a church to the eastward, about N. 4 miles distant. Very by the chart, I find that the ship in that situation must have been 4 $\frac{1}{2}$ miles S. of Cape Roque, which would make the latitude of Cape Roque 38.43 $\frac{1}{4}$. which agrees within 1 $\frac{1}{2}$ miles, of that place as given by Moore.

Nathaniel Brashier's Journal, in the Ship Astrea Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
May 6	S 41° W.	52	North 37° 59'	North 38° 05'	West 10° 14'	West 10° 14'	North 38.9	West 9.40	West Az. A.M.
7	S 87° W.	24	37.58	37.57	10.44		37.55	10.22	23.12
8	S 83° W.	59	38.5	38.8	11.58		38.2	11.7	23.00
							38.7	11.40	22.36
9	N. 71° W.	59	38.27	38.32	13.8				
10	S 11° E.	38	37.55	38.02	12.58				
11	S 52° W.	18	37.51	37.46	13.16	13.12	0°	38.2	13.6
									24.1
12	S 55° W.	32	37.28	37.14	13.19				
13	S 21° W.	117	35.24	35.18	14.40				
14	S 19. W.	160	32.47	32.39	15.41		23.35	14.3	22.41
									corrected.
15	N 82° W.	120	32.55	32.50	18.3	16.27			
16							32.35	17.0	20.26

By Astronomical Board
Az. A.M.

Prince Master, from Lisbon towards Madeira.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
N. W. by N. N. N. E.	First part fine breezes and cloudy, at 6 P.M. Cape Rogne bore per compas 87° 8' E. dist. 7 leagues, from which take my departure being in the latitude of 38° 45' N. Long. 9° 35' W.
W by S. Calm N. W.	Light airs, clear.
W. S. W. S. W.	Light air, pleasant. Observed the variation by an azimuth evening and morning.
S. W. by S. S. W.	Light breeze and pleasant.
S. W. by W. W. S.	Light airs, misty rain. Cloudy Clear.
S. W. by W. W. S. W.	Moderate and pleasant. Took a lunar observation, which agrees with our reckoning since leaving the land. Observed also the variation by an azimuth azimuth.
S. W. by W. W. S. N. W.	Cloudy. Misty rain. Cloudy. Found the ship 14° S. of our reckoning at noon.
N. W. by N. N. E. East.	Fine breezes, hazy. Misty rain. Hazy. Three vessels in sight standing to the westward.
E. N. E.	Fine breeze & pleasant. Observed the variation by a morning azimuth, the longitude are at the time of taking the observation, is corrected by making the land May 15.
E. N. E.	Fine breeze & pleasant. At 9 a.m. made the Island of Porto Santo At 11 made the Island of Madeira. The latitude of the middle of the Island of Porto Santo is 32° 58' 2" N.
	At 9 P.M. came to in 3 fathoms, in 24 fathoms. Bore a lead bearing per compas 56° 45' S. Loca Rock N 6 W.

Nathaniel Bowditch's Journal, in the Ship Astrea. Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
May 27	S 12° W.	105	North 30° 54'	North 31.10	West 17° 35'	West ° "	North 32-12	West 17.10	West Az. PM 21.23 AM 21.17
28	S 13 W	87	29.15	29.46	17.54				
29	S 35 W	128	28.1	28.1 0 27.57	19.18	Departure from Palma. 18.10	28.29	17.55	19.58
30	S 25 W	156	25.40	25.47	19.28				
31	S 15 W	156	23.16	23.30 23.29	20.11		25.11	19.39	20.16 Az. PM
June 1	S 11 W	176	20.39	20.54	20.57	0 20.28			
2	S 11 W	178	18.2	18.6	21.43	0 20.38	20.14	20.32	Az. PM 16.17 az. AM 20.34
3	S 1 W	138	15.55	16.2	28.46	20.46	17.21	20.31	16.57 Az. PM
4	S 13 E.	137	13.48	13.50	21.14				
5	S 13 E	94	12.8	12.6	20.53				
6	S 24 E	162	10.33	10.36	20.11		11.10	19.38	13.34 from last line. 02.

Prince Master, from Madeira towards the Equator.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
E.S.E. N.E. by N. Variable.	First part light air, middle & latter part fine breeze. In the evening when the S.W. part of Funchal bore per compass N 3 E. and the middle of the southern deserta bore E 2 S. the variation was observed 21.23 W. From this I take my departure.
N.E. by N.	Fine breeze, clear.
- E by N.	
E.N.E.	Fine breeze & clear. — Latter part cloudy. At 6 1/2 P.M. made the Islands of Palma. Again saw it in the morning, and by those bearings it appears that the ship was S. 8 E. of her reckoning; from this I take a new departure.
E. N.E. N.E.	Fine breeze & pleasant.
E. N.E. N.E.	Fine breeze, pleasant.
E.	Fine breeze, clear.
E. N.E.	Took two lunar observations of the sun and moon, which make the ship east of her reckoning.
E. by N. N.E. by E.	Fine breeze and clear. Had two lunar observations, which make the ship to the eastward of yesterday's observations. Current S. E. 1/2 knot 18. hours.
E. by N. N.E. by E.	Fine breeze, clear. From our last lunar observations, it appears, that there is a current setting easterly.
N.E. at to N.E.	Fine breeze, clear.
N.E. to N.	More moderate, variable, clear. Great tide rip.
E.N.E. to	Light winds, variable. Tide rippling.
N by E.	Tide rippled for several days past.

Nathaniel Bowditch's Journal, in the Ship *Astrea*

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
June 7	S 15 E	73.	North. 9.26	North. 9.23	West. 19.52	West. 18.47	North. 10.15	West 19.2	West for S.W.
8	S 13 E	55	8.29	..	19.40	18.35	8.41	18.39	Az. AM
9	S 18	75	7.15	7.18	19.32				
10	S 57 W	87	6.31	6.39	20.46		6.38	20.78	Az. AM
11	S 63 W	54	6.15		21.34				
12	S 78	61	5.14		21.27				
13	S 23 W	31	4.45	5.27	21.39		5.35	18:0	Az. AM
14	S 6 W	35	4.52	4.45	21.43				
15	S 43 W	39	4.17	3.53	22.10	* D * 16.59	4.35	16.46	Az. AM
16	S 18 W	29	2.52	2.51	23.16	* D * 18.20	3.46	17.19	Az. AM
17	S 17 W	107	1.9	1.37	23.48	10.52	3.13	18.0	14.55
						From last Obs.			12.15

H. Prince Master, from ~~Macassar~~ towards the Equator.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
E.N.E. to N.E.	Winds light and variable, with night rain and lightning, when very squally but did not blow fresh.
North to West.	Light variable winds, squally, little rain.
S. E. E. N.N.E. N.	Winds variable, squally, thunder, lightning, at times clear.
Variable S.S.E. S.	Winds variable, squally.
South	Light air and pleasant. Number of stars observed,
Variable N.W. S.W. W.N.W.	Variable weather, nearly calm at times.
S.E by E. S.E.	Light air and pleasant. Found the ship 42' North of her reckoning. The longitude in, at the time of observing the variation, was corrected by the observations of June 15, 16.
E. S.E. S. S.E.	Moderate breeze & fair, in the morning a small shower. Took two lunar observations of the sun and moon. The variation this day differs very much from yesterday's observation.
S.E. S.E. South	Moderate and pleasant; latter part fine breeze. Ship 24' South of her reckoning at noon. Took a lunar observation.
S. S.E. S.W.	Fine breezes, clear, pleasant weather. Took two lunar & magnetic observations.
S.E.	Fine breezes, clear. Strong northerly current. Performed around.

Nathaniel Bowditch's **Journal, in the Ship Astraea** - Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
June 18	SSW	105	0.29 N.	0.48 N.	West 25.8	West 20.12	North 1.25	West 19.12	West 0.41 10.34 12.41 11.7
19	SSEW	100	South 0.31	South 0.17	26.9	South 21.13	0.33	20.27	10.10 12.44 9.35
20	SSW	107	1.43	1.41 1.39	27.16	* 22.80	0.38	21.25	10.943 28.44 10.94 10.736
21	SSW	102	3.17	3.16	27.56	23.10	2.98	22.9	10.21 8.30
22	SW	128	5.24	5.32	27.59	23.13	3.44	23.6	10.42 10.41 7.45
23	SSEW	139	7.50	7.44	28.20	23.69	5.3	23.10	10.42 6.5
24	SSEW	109	9.31	9.31	28.45	24.29	8.11	23.22	10.42 6.47 10.41 6.5
25	SSW	82	10.46	10.55	29.17	25.16	9.54	24.60	10.42 5.52
26	SSEW	49	11.41	11.48	29.37	25.81	8.27	25.25	10.42 4.35
27	SSEW	83	12.86	12.55	30.26	26.56	12.4	25.25	10.42 4.35
28	SSEW	80	14.04	14.18	31.8	27.48	13.12	27.9	10.42 4.18

Prince Master, from the Equator towards the Cape of Good Hope.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
S.S.E.	All the day fine breezes and clear.
S. by E.	Strong northerly current.
S. S. E.	Fine breezes & clear. Strong northerly current. Tide rgi. At 8 o'clock crossed the equator in the longitude of 28° W.
S. S. E.	Fine breezes fair.
S. E. Variable S. S. by E.	First part fine breeze & fair. Middle part, variable & squally; latter part pleasant breeze.
S. E. 86° S.	Fine breezes & pleasant, excepting a small squall at midnight.
S. S. by E. 85° S. S. S. by E.	Fine breezes fair, clear weather.
S. S. by E.	Fine breezes & fair.
S. E. South.	Fine breezes, clear.
S. by E. S. E. S. E.	Variable weather & winds, squally, sometimes calm.
S. S. E. S. E.	Fine breeze & pleasant.
	First part fine breeze & pleasant, latter part squally.

Nath'l. Bowditch's

Journal, in the Ship Astrea Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
June 29	548.	128	South.	South.	West.	West.	South.	West.	West
			16.26	16.18	30.59	27.48	14.34	27.48	62.434
30	51 W.	144	18.42	0 18.39 D 18.36	31.1	0 0 Mean of last obs. 27.48	18.5	27.48	Par. 22.
July 1	511 W.	132	20.48	0 20.46 D 20.45	31.29	0 0 Mean of last obs. 28.5	Near Frnd. 9 th . See note at end. in page	2.36	
2	15 W.	108	22.34	0 22.39 D 22.36	31.38	28.19	21.14 22.14	28.8 28.16	Par. 22. 212 4.46.22 2.3
3	523 W.	62	23.36	23.41	31.11	27.57			
4	5298	80	24.46	24.42	30.31	27.22	23.53 24.22	27.48 27.32	Par. 22. 2.41 4.46.22 1.21
5	558.	165	26.05	26.08	28.09	25.5			
6	5648	112	26.49	26.52	26.17	23.18	26.22	27.0	Par. 22. 3.58
7	5678.	102	27.33	27.25	24.32	21.38	26.56	22.53	Par. 22. 4.0
8	5728	172	28.18	28.18	21.26	18.37			
9	5898	110	28.20	28.20	19.22	0 0 16.39			

Prince Master, from the Equator towards the Cape of Good Hope.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
East E. by S. E. S. E.	Fine breeze & pleasant.
E. S. E.	Fine breeze & pleasant.
E. by S. S. E. by E.	Fine breeze & pleasant.
E. S. E.	Pleasant; at noon more moderate.
E. E. N. E. N. N. W.	Moderate & pleasant.
N. N. W. N.	First part moderate; latter part fine breeze & clear.
N. W. to N. by W.	Fine breeze & cloudy. Sun eclipsed, invisible to us, the sun being set before the shadow touched the earth.
N. N. W. N. W. W. S. W. South	First part, brisk gales; middle part, squally, with rains; latter part moderate & pleasant.
S. S. W. W. N. W.	First part fine breeze & clear; middle moderate & pleasant; latter, squally, cloudy &.
W. N. W. S. W. ! S. W.	Fresh gales, squally, thunder, lightning, rain. Double reefed topgallant bowed top, gallant mast &c. Heavy sea running.
S. S. W.	First part, brisk gales & squally. Middle part more moderate, made sail. Latter part all sail set; large swell from the S. S. W.

Naït's Boarding, Journal, in the Ship Astræa Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796 10	1548	100	South 29.12	South 29.12	West 17.64	West 15.4	South 28.26	West 16.15	West 7.53
11	1638	152	30.26	30.20	15.8	12.33	39.30	16.33	7.49
12	1588	178	31.52	31.50	12.12	9.7	31.31	10.13	10.4
13	1688	119	32.36	32.34	10.24	6.49	32.59	12.54	10.3
14.	1658.	99	33.15	33.9	8.16	4.11	32.59	7.54	12.40
15	1708	135	33.55	34.0	5.64	1.9	33.19	3.38	13.28
16	1728	169	34.52	34.55	2.29	2.356	34.10	8.34	14.58
17	1708	155	35.49	35.51	0.29	5.24			
18	1718	133	36.28	36.23	3.9	8.5	35.58	5.53	16.56
19	1858.	152	36.34	36.26	6.17	10.54	36.31	8.43	20.35 Reflected reading much.
20	East	188	36.26	36.08	10.9	14.37	36.23	11.36	21.26 20.36 D

Prince Master, from the Equator towards the Cape of Good Hope.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
S.S. W. Variable SW to West.	Fine breeze & pleasant.
W. S. W. W to SW.	Fine breeze & pleasant, heavy swell from W. S. W.
N. W. W. NW by W.	First part brisk breeze & squally, double reefed topsails. At 8 ^{more} moderate, cut reefs.
S. W. Variable S. W to N. W.	Fine breeze & pleasant, latter part lightning, cloudy. Large swell from S. S. W.
W. N. W. N. by W.	Light air, latter part fine breeze & clear. all sail set.
N. by E. to N. W.	Fine breeze, clear, pleasant weather.
N. E. by N.	First part fine breezes & pleasant. At 8 P.M. squally. latter part fine breeze & cloudy.
N. E. by N.	Fine breeze & pleasant, excepting a few squalls about 9 P.M.
N. E. by E. to N. W. West.	Squalls, wind variable, heavy rain, in morning double reefed topsails, cut at noon & all sail ab.
Variable. N N. W to N. N. E. W. N. W. W to S. W.	Brisk breeze, variable weather, squally, rain, clear. In the evening saw a very bright lunar rainbow.
S. W. S. W. to W. N. W.	All these 24 hours, squally, rainy weather. Hand & Main sails & mizzen fore & aft double reefed topsails & heavy sea.

Math². Bowditch's Journal, in the Ship *Althea*, Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
July 21	East	201	Soult ¹⁴	South 36° 8'	East 14.17	East 18.37	South	East	West
22	S 77° 8'	171	36.41	36.4	17.42	21.54	36.4	20.29	22.47
23	S 66° 8'	179	37.15	37.8	21.6	25.10	36.16	22.46	24.35
24	S 76° 8'	167	37.43	37.22	24.21	28.19	37.20	28.3	26.45
25	S 29° 8'	130	37.47	37.54	27.5	30.53	37.30	28.52	28.31
26	S 81° 8'	48	38.2	37.54 37.57	28.5	31.45	37.38	31.8	29.0
27	S 72° 8'	145	38.40	38.22	31.0	34.30	38.22		
28	S 87° 8'	146	38.31	38.43	34.6	37.43	38.22	35.16	27.59
29	E 14 N	120	38.8	37.80	36.22	40.5	38.30	38.78	29.0
30	E 5 N	160	37.36	37.49	39.18	43.9	37.50	40.30	28.26
31	N 67° 8'	106	37.7	36.54	41.22	45.9			

Prince Master, from the Equator towards the Cape of Good Hope.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
S. W. by S.	All these 21 hours fresh gales & squally, double reefed &c. Heavy sea running.
S. W.	First part fresh gales and squally; latter part more moderate out reefs, and set shuddered sails. Latitude by account & observation differ 37 miles, owing to the mozambique current.
S. W. W. S. W. W. N. W.	First part fresh and squally; middle and latter part more moderate, at times, small rain. Squalls.
W. N. W.	Clear, pleasant weather, fine breeze.
N. W. by W. S. S. by E.	Clear and pleasant, except in the night, when it was a little squally. This evening observed the magnetic bearing of the planet venus. N. 3.1
S. S. E. to E. by N.	Moderate & hazy, large sunce from the N. W.
E. N. E. N. E.	First part fine breeze, cloudy. - At 8 P.M. squally, heavy sea, double reefed topsails, & sent down T. S. Yards. &c.
N. E. N. N. E.	Breath gales, clear; latter part, sharp lightning to the westward.
N. N. E. N.	Fine breeze & pleasant; saw three spermoceti whales.
N. N. W.	Moderate & pleasant; greatest falling in the night.
W. N. W. S. E. E.	Moderate, clear; latter part cloudy. Antados & albilobes around the ships.

Nathaniel Boardman's Journal, in the Ship Astrea, Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
1	S 82° E	121	South 37° 2'	South 37° 9'	East 43° 52'	East 47° 25'	South 37.6	East 47.3	West 27.37
2	N 78° E	114	36.38		46.11	49.50	36.57	48.1	28.28
3	S 83° E	167	36.59	37.18	49.49	53.22	37.12	52.37	26.59
4	N 76° E	126	36.48	36.41	52.22	55.53			
5	S 89° E	172	36.51	36.52	55.57	59.24	36.43	54.0	27.16
6	S 87° E	210	37.3	37.48	60.19	63.43			
7	E 18° S.	166	37.37	37.9	63.42	67.01	37.8	66.33	20.23
8	East	191	37.9	37.6	67.41	70.56			
9	N 86° E	159	36.56	36.45	70.59	* 3 *	76.13		
10	N 89° E	131	36.53	36.56	73.42	76.44			
11	E 14° S.	188	37.40		77.30	80.20			

Princip Master, from the Cape of Good Hope towards the Island of St Paul.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
East N. E. N by E.	First part moderate & cloudy. Latter, fine breeze & clear. Pintados & Albatross around.
N. NW to W. S. E.	First part fine breeze & clear. At 10 P.M. black clouds rising to the W. winds fleecy, took in sudden squalls; as the clouds rose the wind hauled from N.W. to W. & S. when it came to the S. it rained very much, and was almost calm. At noon the wind was East, with small rain.
E. N.E. to N.N.W. S.E. to W.	First part light winds & variable, at 3 P.M. hauled gradually to the northward, & became clear & pleasant, sometimes fleecy. Pintados & Albatross.
N. W. S. S.E. to N.W.	First part brisk breeze & cloudy. At 5 P.M. the wind in a light squall hauled to the southward, with rain, at 4 A.M. more moderate, and hauled to the N. latter part fine breeze & cloudy. Morning & evening currents differed considerably. Hagdens, Pintados.
N.N.W. to W. W. N. W. N. W.	Generally fine breeze & pleasant, a few squalls with rain. Weather pleasant when the wind hauled to the Northward of E. if remains so there, when it lightens to the westward it is almost a sure sign that the wind will shift from the north to W. S. in the latter point it becomes moderate.
N. W. N. W. N. W.	Fresh breezes, generally with rain. When the wind is Northward, it is generally a fine breeze. Notwithstanding it has often lightened with us since passing the Cape, yet we have not heard it thunder.
N. N. W.	Frigates, cloudy, large sea from the N. W. latter part small rain.
W. by N. to S.S.W. W. N. W.	Fresh gales & squalls, single reefed the topsails; hail. Latter part clear, but very cold.
S. W. to S.	Fresh gales, and heavy squalls with rain & hail; at times, very clear.
S. S.W. to W.N.W.	First part squally with rain; latter part pleasant, clear weather, all sail set.
W. N. W. N.W. to S.W. W. N. W.	Fine breeze & cloudy; at times, squally; middle part, steady breeze & small rain; at 5 A.M. the wind hauled to the S. W. & moderated. at 11 P.M. hauled more to the westward. latter part fresh, small rain.

Nath'l Bowditch's Journal, in the Ship Atree, Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
August									
12	N 69° E	184	South. 36° 34'	South. 36° 12'	East. 81° 04'	East. 83.42	South.	East	West
13	E 12 N	161	35.39	35.39	84.19	86.45	35.46	86.18	12.56
14	E 11 N	186	35.3	35.8	88.2	90.16			
15	N 65° E	156	34.2	34.1	90.54	92.56	34.51	88.45	13.28 Westerly wind much
16	N 59° E	110	33.6	33.10	92.68	94.6			
17	N 62° E	134	32.6	32.5	95.8	95.42			
18	N 31° E	171	29.40	29.43	96.52	96.43			
19	N. N. E.	123	27.49	27.56	97.46	97.12			
20	N 19° E	91	26.30		98.20	97.50			
21	North	22	26.8	25.58	98.20	97.52			
22	N 37° W	35	25.30		97.57	97.31			

Prince Master, from the Islands of St Paul & to towards Java Head.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
N. N. W. W. by S.	Fresh gales, squally, rain, large sea, close reefed tropicals, &c. At 1 P.M. turned to the northward, as we had run along the preceding noon, & hewed ourselves nearly up with the Island of St Paul. Latter part fresh gales, heavy squalls, thunder, lightning & rain.
W. by S. W. by N. N. W. by N.	Fresh gales & heavy squalls, large sea; middle part more moderate, but towards noon the gale increased. Passed a number of branches of seaweed.
W. N. W.	Brisk gales, cloudy, large seas; passed several branches of kelp.
W. N. W. N. N. W. by W.	Brisk gales, head sea, squally, clear. No seaweed this day. Pitcairn & Pitcairn
W. by W. N. W. by W. N. by W.	Fresh gales, large sea, rain.
N. N. E. N. N. W. N. by W.	Begins fresh gales & rain. Middle part moderate & cloudy. Latter part fresh gales & squally.
N. W. N. W. by W. W. S. W.	Begins fresh & squally; ends fine breeze & pleasant. This day I took a lunar observation, by measuring the distances from the Planets Mars and Jupiter.
W. S. W. to South. East.	Fine breezes & pleasant; at times, cloudy.
East. E. S. E. to S. S. W.	Moderate & cloudy; latter part light winds & rain.
Variable S. E. to S. W. E. E. N. E.	Light airs & variable cloudy weather.
W. S. N. E. by E.	Moderate, calm, rainy weather.

Mathew Bonaparte's Journal, in the Ship *Astrea*, Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
Aug. 23	N 30° W	76	South	South	East	East.	South	East	West.
			24° 14'		97° 09'	96° 45'			
24	N 59° E	22	24.3	24.19	97.29	97.5			
25	N 68° E	83	23.48	23.52	98.53	99.3	* D 0 24.15 24.9	az. P.M. 97.35 az. A.M. 98.33	4.59 3.11
26	N 46° E	59	23.12	23.9	99.39	99.59	23.40	az. P.M. 97.17	3.33
27	N 30° E	58	22.19	22.29	100.11	100.40	23.0 22.63	az. P.M. 100.10 az. A.M. 100.36	4.14 2.7
28	N 29° E	90	21.10	20.07	100.58	101.30	22.15	az. P.M. 100.52	3.58
29	N 17° W	45	20.33	20.44	100.48	101.24	20.49	az. A.M. 101.26	2.47
30	N 41° E	93	19.34	19.31	101.53	101.55			
31	N 31° E	115	17.27	17.17	103.10	102.37	17.55 19.10	az. A.M. 102.57 az. P.M. 102.29	1.52 0.50
Sep. 1	N 17° E	115	14.58	14.54	103.44	102.37			
2	N 19° E	132	12.53	13.0	104.29	102.47	13.30	az. A.M. 102.45	0.17

Princie Master, from the Island of St Paul's towards Java Head, . . .

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
East. N.E.	First part calm, rainy weather; middle part, fine breeze & clear. Latter part equally, thunder, lightning & heavy rain, caught 5 hogsheads of water.
Calm N.	Light airs & clear, large swell from the eastward.
N by N.	
N by E to N by W.	Light airs & very clear weather.
N. N. W. Variable. W. N. W.	Moderate breeze & clear weather.
W. N. W. S. S. W. S. to E. S. W. to S. E. S. E.	Light airs & very clear. Magnetical observations of the morning & evening differ considerably.
S. E. S. E. E.	First part light airs; latter part, more breeze & cloudy, with rain. Saw a water fowl to windward.
S. N. E. N. E.	Light airs & clear.
Calm S. S. E. S. E. by E.	Comes on calm; at 6 P.M. a small breeze springing up, which continued increasing till noon; cloudy. Tropic birds.
S. E. by E.	Begins with a fresh breeze & equally - comes on cloudy - latter part, fine breeze & clear. Tropic birds, gannets.
S. by S. S. S. E. E.	Fine breeze & pleasant, - Tropic birds
S. by S. S. S. E. E.	Fine breeze & pleasant. Tropic birds.

Nath^o Bowditch's Journal, in the Ship Astraea, Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
Sept. 3	N18E	104	South 11.21	South 11.33	East 105.03	East 102.47	South 12.33	East 102.47	8° 47' P.M. 0.46 W
4	N27E	107	9.58	10.10	105.53	103.24	10.31	102.58	0.35 E
5	N16E	104	8.30	8.25	106.23	Mean of three obs. 102.58	9.48	102.59	0.35 E
6	N36E	84	7.17	7.3	107.13	From 4th obs. 106. 103.48	8.6	106.35	0.58 E
7	N48E	84	6.7	6.5	108.15				
8	NW6N	16	6.2 S.	6.2 S.	Long from Java Head 0.17 E.		5.58	Pic of Tamar Island bore NW by W 1.56 E. dis. 10 mil.	ar AM
9	Lyeng	at anchor near Tamarw. I.					105.0 E.		
10	E by N	25		5.59	0.43				
11				5.57					
12				5.35					

Prairie Master, from the Island of St Paul's towards S in the Straits of Sunda.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
E by E to ESE.	Pleasant breezes & clear weather.
E S E	Pleasant, fine breeze.
E by S.	Fine breeze, & pleasant. At 7 P.M. the whole horizon appeared of a perfect milky colour; soon it was afterwards owing to a cylindrical substance like a jelly. By human eyes, found we were set to the westward.
E by S	Moderate & fair. First & middle part very cloudy; latter, cloudy. The clouds oblique, passing gradually from falling to low clouds, as we were going with the wind; but immediately after taking the oblique, we took in sudden gusts, & turned up sharper.
S E.	First fine breeze & pleasant; then, cloudy; & latter part moderate & clear.
S. W.	at 1 P.M. according to expect at noon made the land of Java, Java Head bearing S E distance 13 leagues, entered the straits by the passage between Prairie's Island and Java.
S. W. to N. W. S E. from Java shore.	Light airs and variable, no current at the beginning of the, S. S. E., but at 3 P.M. when Prairie's Head WNW. 16 leagues, current began to set to the W. N. W. nearly 2 knots per hour, sounding from 20 to 30 fathoms. Finally, the current was so strong that we came to between Sumatra and Borneo.
Calm light airs	Calm clear weather, current setting W. S. 1 3/4 knot; got under way but could not stem the current; we drifted to leeward, not keeping the Java shore enough aboard.
W W calm S S E.	Light airs; at times, calm. At 2 P.M. small waves sprung up from the S. S. W. At noon the Cape bore E by N. dist 4 miles.
	Sounding 23 to 30 fathoms.
	First part light airs & variable, current setting south 1/2 knot, found we could not stem it at 3 1/2 hours too in 25 fathoms; then Cape bearing E 2/4 N. & Borneo N 2/4 E. current running S. S. W. 1 knot.
N.	First part of the 24 hours breeze from N. weather very sultry, current setting S. S. W. 1/2 knot, which was its direction when we got underway at 4 A.M. its velocity in that direction continued till about 10 A.M. thence which was 3 hours after the moon had passed the meridian, when it was 2 1/2 knots, after which it decreased at 12 to one 1/2 knot, at 2 and 3/4 A.M. At noon North Island bore W 16° S. distant 4 to 5 miles.
E. by N.	Soundings 25 fathoms.

Nathaniel Baradiddis Journal, in the Ship Astrea Henry

Prince Master, from the Straits of Sunda towards Banca.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
ESE.	First part light air & variable, at 3 P.M. the current was setting on the Sumatra shore, course, too 17 fath. shells. North Island bearing S. W. distant 32 leagues, current running S. W. by S. 1 knot. at 7 A.M. went abeam, got underway, fine breeze from S. S. E. started N.E. true course, soundings 14 to 9 fathoms. At noon we were noon abreast of the Brothers, the distance of the farther island being about 6 miles.
	First part light air & clear, course from 12 to 4 P.M. N. E. 2 knots per hour. soundings 10 to 7 fath. At 6 P.M. two Brothers were S. by E. 2 1/2 leagues distant, till 9 P.M. sailed but little, then steamed the water from 7 to 6 fath. next east 5 1/2 then 1 3/4 hard bottom; we immediately came too; current setting S. 1/2 knot. At midnight left the wind hauled to S. S. E. got underway, sailed till 4 A.M. N. E. 2 knot, soundings 5 to 7 fath. gradually deepening as we hauled off shore. The place where we anchored we suddenly found very uneven way between the Shabunder & the Banks which runs off Talantung river. The soundings we have found, do not agree well with those of Lavois & Whittle's charts. & in some places they are very irregular.
E. S. E.	Pleasant breeze & hazy. From 12 to 4 P.M. soundings 11 to 9 fath. steering N. N. E. 3 knot per hour. At 4 A.M. judged ourselves nearly abreast of Lucepa, came to anchor, and in the morning saw it bearing N. 36 deg. distant, got underway, the current setting S. & it continued to do so till about 11 A.M. (1 hour before the D. came to the meridian, when it was still water. At noon Lucepa bore S. S. E. dist. 8 miles.)
E. S. E. or S. S. E. East.	First part fine breeze & pleasant, steering N. N. by N. soundings from 15 to 4 fath. at 2 P.M. abreast of the S. point of the Straits of Banca, at 7 A.M. passed a Bank nearly abreast of it the point, which was called 10 fath. bank in the Directory; on it, we suddenly shot from 10 to 7 1/2 to 5 1/2 fath.
	hard bottom; hauled to the northward & soon deepened to 12 fath. hard irregular sounding from 7 to 17 fath. at noon N. N. E. 2 knot dist 10 miles. The first part of the day the current set Northward at the rate of three miles per hour, but the latter part it set to the southward, off the Sumatra shore, ruffed by many drift trees some of them, at first, resembling forest; few several fathoms, & snakes 8 feet long, resembling those on land.
	The soundings between the point & the North part of Banca Straits are not marked enough on the charts by 2, 38 1/4 fath. the greatest on the chart being 18 fath. whereas we had 17 & 18 fath. in several places.

Nathaniel Bowditch's Journal, in the Ship *Albion Henry*

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
Sept 17				0.518.					
18	N 18° E	62	North 0.8	North 0.19	East of Pulo Taya 0.34				
19	N 4 W	69	1.28	1.45	0.25				
20	N by W	36	2.20	2.32	0.18				
21	N 3 W	71	3.43	3.49	W. of Pulo Dormos 0.8				
22	N 8	123	5.52		0.6				
23	N 6 E	76	7.5	7.5	0.128	106.57			
24	N 18	113	8.51	8.38	1.328	107.388			
25	N 50 E	129	9.59	9.59	1.578	106.23 ¹ Sep. 108.574			

Prince Master, from Banca towards Pulo Sapiata.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
E N.E. S.E. E.	First part light and variable; middle; more became; till 1, pleasant. Soundings from 10 to 7; at 5 P.M. the wind hauled round Banca Bear from the Northward which headed us upon the Banca shore where we sailed for some time on 13 fath. sand, or we cleared the straits the winds hauled more to the Eastward, & we steered more easterly we deepened the water, current all day setting to the westward. In the morning discovered the 7 Islands, at 8 A.M.
	Saw Pulo Taga. At noon the middle of this Island bore W by N. & the northernmost of the 7 Islands S by E. & passed several bunches of wood, like that seen in the Gulf of Florida.
S.E. to E.	Moderate & pleasant, sounded from 18 to 23 fath. sand, the water of the same blue color as in the open ocean. At 8 P.M. Pulo Taga bore W by S. & P. Taga 8 long. distant.
E & S.E.	Moderate & clear, current set the ship 17' to starboard; at midnight cloudy, in the morning a little rain. Soundings from 26 to 35 fath. dark sand & shells.
E. S.E.	All these 24 hours light air & very gusty, soundings 27 to 48 fath. dark shells. At 7 A.M. discovered the little Island of Timor, at noon it bore N.E. dist. 11 miles.
S.S.E. to S.S.W.	Began light 10.30, pleasant, warm; ends with a fresh breeze. Sounded 48 fath. At 2.34 P.M. Pulo Damar was E. of E. being in the same range with the southernmost high land of the Great Andaman.
S.S.W. to S.W. by W.	Bruk breezes & squalls for the first time since crossing the equator saw the Polar Star. By trigonometrical observations made yesterday found that Pulo Damar was 144 feet in height & 400 feet diameter.
S.S.W. to W.N.W.	First part moderate & clear; latter part bruks & rain. at 11 P.M. sounded 32 fath. sand.
W.N.W. to S.S.W.	First part fine breeze & cloudy middle part, squalls; latter, fine breeze. At 6 A.M. saw Pulo Condore bear N. N. W. dist 7 leagues. Hence the current has set us 65' E. until now P. Damar.
W.P.W.	First & latter part, variable & squalls, middle fine breeze & pleasant. At 7 A.M. made P. Sapiata, at noon it bore N. W. by W. 24' E. 8 miles.

196

Journal, in the Skin Atread, Henry

Prince Master, from Palo Sapata towards Manila.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
W N to S N S W to N W S W	Winds variable, equally, rain. great number of pieces of wood floating on the water.
S W	Squally, with rain.
S W S S E S S W	Fresh breezes & squally.
S S W	Moderate & pleasant.
W P W	Light winds & pleasant
W S W S W	First part moderate & pleasant; latter part fresh & squally.
S W S S E	All these 21 hours, thick, squally, rainy weather, at 11 being very thick, however, at 12 low ship, in the morning made the land, being the Island of Lubang; at 6 A M Goat Isle bore
	By a distant 6 or 7 leagues, consequently, by our reckoning, Goat Island is 118.2 E. its long by the directory being 117.55. consequently the error of the reckoning is .53.
	See harbour journal at the end. page 38.

Nath^o Bowditch, Journal, in the Ship Astraea, Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
Dec 12	W by S.	129	North 13.30	North 13.4	East 117.18	East	N.	E.	
13	W 4 S.	118	12.50	12.46	115.20				
14	W ³ N	106	12.55	12.32	113.33				
15	S 65 W	123	11.40	11.26	111.40	By an Eclipse of the moon 112.4			
16	S 39 W	123	9.50	9.43	110.21		By eclipse	109.34	
17	S 70 W	138	8.55	8.28	108.16	By eclipse	107.29		
18	S 36 W	95	7.11	7.12	Along W. of Pico Island 0.23 N.	By eclipse	106.32		
19	SSW	117	5.24	5.16	1.8 W		105.47		
20	S 25 W	126	3.22	3.15	2.0 W	By eclipse	104.55		
21	S 34 W	137	1.28	1.0	Pm, P. T. mon	1.11 E			
22	S 3 W	113	0.53 S	0.10 S. 0.18 S.			1.3 E		

Prince Master, from Manila towards Banda.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
N by E N.	At 12 O'clock took new departure from Goat Island, bearing E 7 miles. Fresh breeze & heavy sea.
N.	Middle part of these 24 hours fresh gales & heavy sea from the northward, shifting much water on deck. latter part fresh gales & heavy sea, cloudy with small rain.
N.	First part fresh gales & heavy cross sea; latter part, more moderate.
N.	At other 24 hours fresh gales & large sea, shifting much water on deck; rain, squally. In the evening observed the beginning & end of a lunar eclipse, which make the longitude 112.4 E.
N E.	Fresh gales and large sea running.
N E.	First part fresh breezes & fair; at midnight sounded 50 fathoms, coarse sand & white sand; latter part more moderate, less sea; at noon sounded 25 fath. Current sets us 27 miles to the southward.
N. N. E.	Pleasant gales & fair. At 3 P.M. made Pulo Condore bearing N 03 M. 7 leagues, at 4 P.M. it bore N. W. 04 5 leug. when the sounding was 22 fath.
N. E. by N.	First part fine breezes & pleasant, at 8 P.M. sounded 32 fath. mud. Middle & latter part fine & pleasant.
N. E. to N	Fine breeze & clear; middle part, a little squally. just at noon made Pulo Timor bearing S 8 E, distant 6 leagues. At 8 P.M. in lat. 4.95 N. sounded 25 fath. sand. Current sets us 26 miles south a little westerly.
N. N. E.	Fresh breeze & pleasant, at 3 P.M. made Pulo Pica-y bearing S 8 E, dist 6 leagues, at 5 P.M. made Pulo Togas. Very hazy.
N E.	Fine breeze & pleasant. Sounded 20 to 16 fath. sand. At 10 A.M. discovered the 7 Islands. The water has been so obscured ever since passing P. Sapato. Weather very hazy.

Nath'l Bowditch's Journal, in the Ship Africa, Henry

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1796									
Dec. 23	South	46	South 1.56	South 2.11	East		South	East	
24			3.22		106.10				
25	South	48	4.8	4.16	106.23				
26	South	24	4.38	4.48	106.13				
27			5.24		106.9				
28			5.48						
29									
30			6.15		105.18				
31									
1797									
Jan 1.			6.41						
2	North	42	7.4		104.32	104.32			

Princ Master, from Banca towards Java Head.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
N. E. N.	All these 24 hours fine & pleasant. At 8 A.M. saw Monolith Hill bear. S 86 E dist. 3 leagues, sounding fine 20 to 7 fath. At noon Monolith Hill bore. N 68 E dist 6 leagues, sounding 13 fath.
N. E. W. NW.	First part of a breezy hazy, at 1 P.M. about of the Point, in ground with 13 fath. bad soundings in the straits from 6 to 13 fath. At noon Lucifer bore. N 4 W dist. 3 leagues.
N. Calm N E.	Begins moderate & pleasant, at 9 P.M. heavy thunder & sharp lightning, which continued all night, raining very hard, night 3 casts of water current S. E. 1 knot.
N. Calm N W.	Begins moderate & cloudy, at sunrise nearly calm, came too near the sun at 2.30. At 5 A.M. got underway with a small breeze.
W. SW NW Variable	Squally, with light rain, at 3 P.M. about of the two Brothers. soundings 10 to 26 fath. In the evening saw Isle Baboo bearing E by N.
Variable & light airs all round the compass.	Moderate & pleasant, tending to calm, sounded 13 to 7 fath. Current S. W. 2 knots. At noon came too in 20 fath, hard bottom. The British bear. S 67 E, per compass. & the extremity of Prowd the way from S 78 to S 58.
Light airs	First part riding at anchor about of Round Island, current still running at 5. got underway, but the wind getting faint was obliged to come too again.
Calm S. by W. SW by S.	Light airs, nearly calm, current setting S. W. nearly 3 knots for hours, at anchor off the Islands, at 2 P.M. springing up from the westward, made sail upon her ^{but it would only} bear up to her, her anchor. The breeze shifting up got underway, but the current was so strong that the vessel had to be hove to.
S to W. variable	Wind variable, beating in the straits of Sunda. Violent squalls & heavy rain.
S to W.	Squally, rainy, disagreeable weather. beating out of Princ Island Straits, gained nothing the day. Heavy rain continuing into the straits.
W to S. N W.	This day squally, rainy weather, beating in Princ Straits; at 5 P.M. the wind favored so that the ship lay up S W & S W by W. Friends very much filled up our water. At 9 P.M. first point of the straits bore S 8. dist. 20 miles & the way departs.

Nath'l Board of Geod. Journa

Journal, in the Ship, Astrea, during

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
Jan ⁿ									
3	S 25 W	114	8.18	8.41	103.45	103.62			
4	S 34 W	79	9.54	9.48	103.6	102.55			
5	S 8 W	27	10.13	10.17	102.51	102.42			
6	S 01 W	41	10.23	10.22	102.10	101.58			
7	N 76 W	72	10.5	9.59	100.59	100.46	10.10	101.2	1.44
8	S 10 E	38	10.35	10.36	101.11	100.55			
9	S 82 S	69	11.29	11.23	101.55	101.48			
10	S 4 W	54	11.26	11.21	101.01	101.3			
11	W 5 W	32	11.33	11.30	100.31	100.42			
12	S 11 W	66	12.28	12.38	100.19	100.39			
13	S 70 W	30	12.49	12.52	99.50	100.19	12.46	100.24	0.568

Paris Master, from Java Head towards The Isle of France.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
W by N. W. N. W.	Fresh breezes & gaily; and inclining to the westward. Cloudy, rain, and the wind.
W. W. W. W by N	Fresh breezes, cloudy, rain. First part fresh breeze, cloudy; latter, more moderate light airs, pleasant.
N W to W.	Light winds & variable, clear. at 6 A. M. small shower.
S S E to S.	Light airs, & pleasant. Sharks, Dolphins & around.
S by W S W by S.	Begins light airs & pleasant; latter part fresher breeze, pleasant.
S W.	Moderate breeze, pleasant, score from S. W.
S W by W to S W by S.	Moderate gales & pleasant.
S W to S by W	Moderate & pleasant. Since leaving the straits the wind has held so much to the southward, that we have found it very difficult to get into the bays & inlets to S. E. these generally weighty.
S W to N E. Variable	Light wind & very variable. Current appears to set Northward ever since leaving the straits, as our lat by air & Obs. have nearly agreed with each other.
N. N E. E N E E S S.	Light breeze, & pleasant.
E N E Variable South S S W.	Light breeze, calm, pleasant, cloudy, rain. Great number of Dolphins & around.

Nathaniel Bowditch's Journal, in the Ship Albion Henry Prince

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
Jan 14	S 86 W	93	South 12.59	South 12.57	East 98.15	East 98.53	South 12.59	East 98.53	South 12.57
15	S 81 W	83	13.10	13.10	96.51	97.38			
16	N 87 W	44	13.8	12.56	96.6	97.2			
17	S 22 W	8	13.4	12.53	96.4	97.9			
18	S 26 W	37	13.26	13.19	95.48	97.2			
19	S 42 W	74	16.16	15.56	94.58	96.21	00 E 14.2	AZ. AM. 13.47 2.38	
20	S 47 W	99	15.4	16.45	93.46	95.16			
21	S 62 W	122	15.43	15.28	91.42	93.23			
22	S 67 W	132	16.20	16.4	89.35	91.25			
23	S 67 W	129	16.53	16.37	87.35	89.14			
24	S 65 W	125	17.30	17.20	85.33	86.50	00 E Last 00		

Master, from Java Head towards the Isle of France.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
SE to SW	First part fine breezes, pleasant; at midnight more moderate; latter part pleasant breezes & fine.
SW S.	Moderate gales & clear.
S. So westerly	Light airs, inclining to calm, clear.
W by N E	Light airs, calm, clear. Sails from S.
W.N.E E	Begins light breeze, but at noon freshens; clear.
E	Pleasant breeze, clear.
SE	Moderate, pleasant. Fine breeze, clear.
SE by E	Fine breezes & clear, great numbers of Bonitos around.
SE	Fine breezes & clear.
E ESE	Fine breeze, fair.
E to E.N.E	Fine breeze & fair, excepting a small rain squall at 10 A.M.

Nath. Bowditch's Journal, in the Ship Astrea, New York

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
Jan 25	S $67^{\circ}30'W$	168	South 18.17	South 18.17	East 83.9	East 84.4	Salt.	East	W.
26	S $76W$	143	19.18	19.21	80.83	81.26			
27	S $76W$	156	19.59	20.19	78.12	78.23			
28	S $76W$	164	20.46	20.46	76.24	76.14			
29	S $76W$	53	20.87	21.01	75.28	74.56	AZ. A.M.	75.16	West 3.20
30	S $76W$	95	21.25	21.36	73.47	72.53			
31	S $82W$	97	21.66	21.80	72.4	70.48	A.M. AZ	71.19	6.57
Feb 1	S $82W$	114	21.57	21.51	70.2	68.24	A.M.	6.3	
2	S $82W$	79	22.3	22.0	68.37	66.37	P.M. AZ.	67.4	10.26
3	S $71W$	84	22.28	22.28	67.12	64.51			
4	S $73W$	98	22.57	22.57	65.31	63.67	AZ. P.M.	64.3	9.29

Prince Master, from Java Head towards the Isle of France.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
ENE	Rainy, squally weather, large sea, double-reefed T. M. topg & single-reefed M. S. L. & C.
ESE	All the day rainy, squally weather, large seas, slipping much water on deck, at noon rather more moderate, wind fresh.
ESE to NE.	Fresh breeze, squally, rain, large sea, slipping considerable water on deck. latter part more moderate.
NE to N.	Begins fine breeze & pleasant, middle, variable wind, rain; latter light breeze & pleasant.
variable N. 8 by N 8 by S.	Light breeze, variable; midnight small showers; latter part clear pleasant weather, fine breeze.
ESE to ENE	Moderate breeze & clear.
E.	Fine breeze & pleasant.
SSW	Fine breeze & clear.
E to ESE	Begins fine breeze & pleasant; & d, variable wind & small showers. Took several lower observations within a few days.
ESE to ENE	Begins squally; middle, moderate, rain; latter, pleasant breeze, clear.
ESE to ENE	In general fine breeze & clear; sometimes a small shower.

Mathew Brindley

Journal, in the Ship Atreca, N. Prince

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
Ac ^t 5	W ^h S	86	23.08	South	64° 0'	62.53			
6	W ^h S	90	23.36	23.41	62.17	61.47	23.36	62.3	11.8
7	W ^h S	92	23.59	23.58	60.38	60.45			
8	S ⁷⁶ W	74	24.16	24.21	59.19	60.3	24.41	60.35	15.2
							24.15	60.13	14.5
9	S ⁷⁰ W	96	24.53	25.8	57.39	* 59.1			
10	S ⁷³ W	86	25.33	25.43	56.8	57.30			
11	S ⁷³ W	116	26.17	26.31	54.10	55.32			
12	S ⁷⁴ W	38	26.14	26.19	53.30	54.53	26.30	55.3	17.30
							After some time by the moon when bearing was N ⁵⁰ W. the Var. 20.27		
13	N ⁷¹ W	29	26. 9	26.13	52.59	54.23	26.10	53.22	18.56
14	S ⁷⁰ W	31	26.26	26.19	52.26	53.50	26.17	53.58	18.10
15	W ³¹ S	55	26.67	27.5	51.33	52.58			

Master, from Java Head towards Hoëville of France,

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
E.	Fine breeze & pleasant.
E.	Fine breeze & pleasant.
E	Fine breeze, pleasant.
E	Fine breeze, clear.
E & N.	Fine breeze & pleasant. Had a lunar observation, with the stars Regulus & Alderamin.
N & E to E	Begins moderate & clear; ends with small showers.
N & E to E	Begins, moderate breeze & light rain; middle part, especially at noon, saved by sunshower; latter part variable, light rain.
N & E to E calm W & W.	Begins fine breeze & cloudy; middle, calm & clear, large sea, obscured the variation by an error of two degrees.
W to SW.	Light airs, inclined to a calm, clear.
E to S & S.	Begins calm & clear, latter part light airs & cloudy, ends with small showers.
E to S & E	Begins light airs & small rain, ends with variable wind, greatest a rattle all day; at noon, found we were set 18 miles, to the southward.

North Boundings; Journal, in the Ship Astrea, N. Prince

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
16	S 65° W	53	South 27.28	South 27.36	East 50.38	East 52.44	South	East	W.
17	S 70° W	66	27.58	27.53	49.28	50.54			
18	S 70° W	115	28.32	28.20	47.26	48.53			
19	S 67.30 W	115	29.04	29.11	48.26	46.53			
20	S 66 W	101	29.53	29.52 29.47	43.37	45.05	28.23	46.23	25.06
							29.40	45.35	26.69
21	S 75 W	132	30.76	30.52	41.09	42.38			
22	S 75 W	78	31.02	30.57	39.42	41.22			
23	S 76 W	140	31.31	31.26	37.03	38.54			
24	S 76 W	93	31.49	31.53	35.17	35.30	31.36	36.21	25.19
25	S 78 W	121	32.18	32.22	32.58	33.35	31.59	35.0	27.41
26	S 80 W	153	32.69	33.12	29.59	29.55	33.0	30.49	26.35

Master, from the Isle of France towards the Cape of Good Hope.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
Very variable E.	Begins equally with rain, and moderate & pleasant. Set S' South by a current.
Variable S.E. N.E.	Moderate & pleasant; latter part cloudy; at 1 A.M. heavy thunder & lightning to the N.W. Tide rcp.
E.N.E. to E by S	Fine breeze & cloudy, latter fresh breeze cloudy, equally, rain, lightning. The day the ship sprung a leak, which continued steady till we arrived at Sabu, being obliged to keep two men to the pumps constantly. X
E.	Equally, rain, lightning. Tide rcp.
E	Begins equally, but ends fine breeze & clear. Tide rcp.
E. N.E. to N.	Fine breeze & pleasant.
N. variable to W & S.W. S.S.E.	Pleasant, light winds. End brisk breeze & cloudy.
E by S S.E.	Fine breeze, fair pleasant weather.
E.S.E to S.E	Pleasant breezes & clear, no appearance of a current.
E.S.E to S.S.E	Begins pleasant & clear, and, equally with rain,
E.S.E to E. E.N.E. N.E.	Excellent breeze, clear, Current set the ship 23° S. being in the Mozambique channel,

Nathaniel Bowditch's Journal, in the Ship Astrea, Henry Prince.

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
Feb 27	S 74 W	92	South 33° 30'	South 33° 54'	East 28° 10'	East 27.27	South 34.2 34.17	East 22.0 29.18 28.41	W 28.47 25.26
28	S 86 W	39	33.57	34.24	27.25	16.3			
March 1	N NW	53	33.25	34.10	26.59	24.59			
2	S 26 W	25	34.33	34.56	26.46	24.8			
3	S 87 W	49	35.4	34.59	25.46	22.30			
4	N 61 W	44	34.43	34.42	24.58	21.51	35.3 34.53	22 P.M 22 A.M 22 1	26.31 26.49
5	S 68 W	88	35.15		23.18	20.21			
6	N 88 W	108	35.12	35.12	21.6	18.18	35.22	az A.M 18.48 38.8	22.30
7	N 37 W	50	34.42	34.49	20.30	17.52			
8	N 60 W	112	33.53	33.31	18.34	16.5	34.38 33.521	az. P.M 17.25 az A.M 16.32	26.37 26.7
9	N 65 W	156	32.76	32.23	15.49	13.27			

Master, from The Isle of France towards the Cape of Good Hope,

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
NE W. W.W. NW. N.	Begins fine breeze & clear; at 6 P.M. lightning to the W., at 11 th wind came to the W. with rain; at 1 A.M. calm, large sea, swell rolling much. at noon light breeze, swell abated.
N.E. S.E. variable. N.E. to E.	Light wind variable, not much swell, no tide or rippler. Within two days, the first that have been round us since leave "the shrubs have left us, having crept nearly 100 fms. from 8 to 20th Dec. since. Those we first caught were of an excellent flavor, but having caught more than we could eat, we salted some of them, but it was found that after keeping them 2 or 3 days, they would cause the headach to any one who ate of them. At 9 A.M. made the land about Malacca Bay. Light wind & variable, current set S. 27 miles.
W. to SW by W	Begins, light wind & pleasant, middle part, squally, & rain. Ends with heavy rain. breeze & clouds. Weather very cool.
S.W. to S.S.E. E. to N.E.	Begins moderate breeze & cloudy; middle, squally, large sea. At 10 P.M. water discoloured. In morning saw land bearing N by W. & a great distance.
E W.S.W. W. W.S.	Moderate breeze & pleasant, swell abated. Tide rcp, water discoloured. At 10 A.M. saw the land near Cape Vacaas. The current set us northward, if any thing.
W.P.W. S by W S.E.	Begins moderate & pleasant; middle part calm, sounded 67 fath. grey sand mixed with small shells. In the morning the water not so coloured.
S.E. to E.S.E. S.E. to N.E.	Begins light breeze & pleasant, land in sight; ends fine breeze small rain, water not discoloured.
N.E. to N.W. N.W. to W	Fine breeze & pleasant.
W.W. to W.S.W. S.W. to S.S.E.	Wind variable, pleasant. Took a lunar observation, with the stars Aldebaran & Regulus.
S.E. to S.S.W.	Fine breeze & pleasant.

Nath^o Bowditch's Journal, in the Ship *Alcea*, No *Primer*

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
March			South	South	East	East	Lat.	East	W.
10	W67W	106	31.23	31.13	14.06	11.52			
11	W55W	134	29.55	29.46	12.0	9.51	30.56	11.7	22.23
12	W47W	157	28.3	28.18	9.45	7.37			
13	W46W	106	27.5	27.5	8.18	6.8			
14	W47W	63	26.21	26.21	7.27	5.16	26.35	5.28	18.18
15	W46W	76	25.26	25.30	6.28	4.13			
16	W47W	87	24.32	24.38	5.17	3.1	25.18	3.55	21.7
17	W47W	81	23.44	23.50	4.11	1.54			
18	W47W	95	22.46	22.39	3.55	1.37	23.3	1.41	17.20
19	W47W	111	21.26	21.26	2.55	0.36			
20	W51W	114	20.12	20.12	0.50	3.3			

Master, from *The Care of God Hopetowards St. Helena.*

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
S to SW by W	Fine breeze & cloudy.
W to SW SW to S.	Fine breeze, pleasant, hazy. latter part, fresh breeze, pleasant,
S to S8	Strong breeze, cloudy.
S8 to S868.	Fine breeze, cloudy.
S to S8	Pleasant breeze, cloudy.
S8 to S8	Moderate, pleasant: Pleasant breeze, cloudy.
S8	Pleasant breeze, clear.
S8 S to S8	Pleasant breeze, clear; latter part cloudy.
S8.	Light breeze, cloudy.
S8 to S8	Pleasant breeze, cloudy.
S8 by S	Fine breeze, cloudy.

Nath^{er} Bowditch

Journal, in the Ship Atree, No. Prince

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
March									
21	NESE	94	South.	South.	West	West	South.	West	W
			19° 12'	19° 12'	6.27	3.60 3.44			
22	N49W	99	18.7	18.4	1.66	* 9 x 5.25	19.0	14.09 12. A.M.	1647
							18.24	5.0	1448
23	N49W	97	17.0	17.2	3.3	* 9 x 6.40			
24	N48W	116	18.46	18.41	4.33	* 9 * 8.25	16.7	8.5	11.56
25	N57W	110	16.65	16.37	6.11	16.18	16		
26	N59W	106	13.42	13.48	7.64	12.6	14.27	10.45	11.24
27	N58W	119	12.45	12.46	9.28	16.5			
28	WS6W	116	11.39	11.47	11.6	15.88	12.4	15.30	11.8
29	N56W	105	10.48	10.57	12.35	17.42			
30	N56W	112	9.54	9.58	14.10	19.32	10.43	18.10	11.30
31	WS1W	115	8.53	8.54	15.33	21.11			

Master, from St. Helena towards Ascension,

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
SSE by E	Fine breeze, cloudy. middle part with rain; latter part, cloudy.
SSE by E	Fine breeze & clear.
SSE by S.	Fine breeze & clear.
SSE by S.	Fine breeze, light clouds; at times rain.
S E SSE to ESE	Fine breeze, clear, latter part cloudy.
SSE to ESE	Fine breeze & clear, in general pleasant but sometimes cloudy with light rains.
SSE to S E	Same as yesterday.
S E	Fine breeze & clear weather
S E to ESE	Ditto.
S E	Ditto,
S E to ENE	First part, fine breeze & clear; middle part, cloudy, large sea; latter part moderate & hazy.

Nath^{rs} BowditchJournal, in the Ship *Asacea*, 16 Decr.

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
April									
1	W 53° W	80	South 8° 9'	South 8° 12'	West 16° 53'	West 22° 47'	South 8.25 By Planet Venus	West 22.13 Venus 837	
2	W 53° W	87	7.20	7.26	17.44	93.52			
3	W 53° W	100	6.41	6.43	19.13		60 mean of 3. 25.37		
4	W 53° W	89	6.2	6.1	20.33		* 0 * 27.04	az. A.M. 6.10 26.37	5.46
5	W 52° W	71	5.17	5.15	21.29		* 0 * 27.38	az. P.M. 27.12 az. A.M. 27.30	6.33 5.45
6	W 53° W	93	4.26	4.36	22.41	20.51			
7	W 50° W	99	3.32	3.32	23.87		* 0 * 30.8		
8	W 50° W	80	2.41	-	24.59	31.22			
9	W 43° W	23	2.26	2.20	25.15	31.50			
10	W 71° W	44	2.10	-	25.58	32.48		az. P.M. 2.8 32.4	2.65
11	W 38° W	28	1.68	1.68	26.14	33.26		az. P.M. 2.2 32.40 By Observing the bearing of a rainbow in the morning 1.56 26.10 3.16	2.19

Master, from Ascension towards the Equator,

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
SE SSE to N.E. SE	Moderate & pleasant.
SE	Fine breeze & pleasant.
SE	Fair & moderate part pleasant breeze, & clear, with occasional clouds, & a few small clouds.
SE	Squally with rains. At 5. P.M. took a sudden sail, for the first time, for 28 days. Took two lunar observations.
SSE to N.	Rainy, squally weather, not blocking hearing in the squalls. Took two lunar observations.
SSE to E.N.E.	Pleasant breeze, cloudy; at times, a little rain.
SE	Fair & moderate part, fine breeze; at times, squally; latter, calm, rain, & a few small clouds.
SE S.E. Calm	Variable winds & weather, rainy, calm &c, caught 2 hogshead of water, large swell from N. E. Tide rcp.
N.E to W. Calm SSE	Variable winds, calm, swell from N. E. Ship seems to have been set to the northward by a current.
SSE to E Calm N.W.	Variable winds & weather, large swell from N. E. tide rcp. Rain,
W.W.W N N.E	Variable winds & weather, sometimes calm, rainy,

Nath^r Bowditch's

Journal, in the Ship Astræa, N Prince

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
April									
12	W34W	60	South	South	West	West	North	West	
			0.58	1.19	26.68	34.25			
13	N47W	66	0.20	0.31	27.33	35.38			
14	N35W	106	North	North	28.33	* 0 *			
			1.8			37.0			
15	N51W	120	2.26	2.1	29.46	38.5	1.40	37.49	0.35
							Star	Star	Star
							Star	Star	Star
							Star	Star	Star
							Star	Star	Star
16	S66W	115	3.05	3.02	31.32	39.43			
							Star	Star	Star
17	N36W	117	4.7	3.57	33.9	51.11	3.16	40.7	0.31
							Star	Star	Star
							Star	Star	Star
18	N51W	113	5.9	5.8	34.36	* 0 *	4.5	41.31	0.458
						42.29		Amp. A.M.	
							4.50	42.9	0.418
19	N36W	111	6.38	6.43	35.41	43.48			
							Star	Star	Star
20	NW	132	8.17	8.16	37.15	45.36			
							Star	Star	Star
21	N40W	133	9.59	10.7	38.39	* 0 *	9.39	46.69	0.218
						17.13		Amp. A.M.	
22	NW	132	11.40	11.36	40.12	49.0			
							Star	Star	Star

Master, from the Equator towards the West Indies.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
SE to ENE. NE by E.	Light breeze & variable, with small rain. Few clouds by A.M. & Obs. differ 26'.
SE to ENE.	Rainy & gale weather, wind variable.
NE to N. Variable from NNE to ENE.	2dto. Had 2 lunar observations.
NE.	Fine breeze, at times gale; ends with a fresh breeze & cloudy.
N by N	Fine breeze & cloudy.
NE	Fine breeze & pleasant, great tide rip.
NE by N	Fine breeze & clear, great tide rip.
NE to NNE.	Fine breeze & pleasant weather.
NE	Fine breeze & pleasant weather. Had two lunar observations.
NE	Fine breeze, light gale, rain.
NE to S	Strong breeze & gale with rain.

Nath^{er} Barretts Journal, in the Ship Africa, N. Prince

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
April									
23	N 40W	134	13.20	13.17	41.39	50.41	12.52	50.0	0.438
24	N 34W	95	14.36	14.36	42.32	51.48			
25	N 56W	75	15.18	15.15	43.36	53.4	15.5	53.0	0.31
26	NW	76	16.9	16.2	44.30	54.11			
27	N 31W	76	17.6	16.58	45.10	55.9	16.16	55.22	1.2W
							16.40	55.47	1.178
28	NNW	92	18.23	18.28	45.47	56.0			
29	N 41W	68	19.35	19.34	46.1	56.28	10.45	56.7	0.38W
							19.18	56.21	0.328
30	N 17W	55	20.27	20.31	46.18	56.59			
May									
1	N 22W	41	21.5	21.5	46.47	57.42	20.57	57.31	1.58
2	N 58W	60	21.37	21.34	47.42	58.52			
3	N 39W	59	22.20	22.25	48.22	59.22	21.42	59.0	1.28W
							22.10	59.14	1.37W

Master, from the Equator towards the West Indies.

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
E to N.E. N.E. E.	Fest part fresh gales & squally, middle & latter part fine breeze & cloudy.
E. N to N.E.	Pleasant breeze & fair.
N to N.E.	Moderate & fair.
N. N to N.E.	All this day made a & pleasant; middle part, small shower, this day passed a number of bunches of Gulf wood being the first we have seen in passage.
N by N to E.N.E.	Moderate & pleasant. At 10 P.M. observed the altitude of the Pole Star, which make the latitude 16.32 N. The latitude by the log being 16.37 N.
E to E.N.E.	Fine breeze & pleasant.
E.N.E.	Fine breeze & pleasant. Spoke with the Sloop Rosetta of Newgate, out 26 days bound for St. Cruz.
E to N.E. & E	Variable weather, unsteady & squally.
E by N to N.N.E.	Light breeze & variable Made two lunar observations.
N by E to N.E. & N by E	Moderate & pleasant, wind inclining to the northward. Had two lunar observations. { At 2 ^h . A.M. Lat. by Pole Star 21.15 ^o By the log at the same time 28.22 ^o
N to N.E.	Moderate & pleasant. Had two lunar observations.

Nath^{er} Bonaditch's Journal, in the Ship Astrea, N^o Prince

Date.	Courses.	Dist.	Latitude.		Longitude.		Variation.		
			Acc.	Obs.	Acc.	Obs.	Lat.	Long.	Varia.
1797									
May 4	W 43° W	65	South 23° 47'	North 23.07	West 49.9	West 60.23	* A *		
5	N 37° W	38	23.37	23.35	49.33	60.44	By land		
6	N	6	23.41	23.41	49.33	60.51	By land		
7	W 7° W	44	26.25	26.16	49.39	60.44	* A *		
8	N	65	25.21	25.29	49.39	60.53	* A *		
9	N	98	26.87	27.5	49.39	60.53	By land		
10	N 2 W	52	27.49	27.53	49.41	60.56	By land		
11	N 36° W	108	29.20	29.14	50.52	62.7	By land		
12	W 26° W	118	31.2	30.59	51.17	63.3	By land		
13	N 37° W	119	32.36	32.45	53.13	64.36			
14	N NW	132	34.47	34.45	54.11	65.31			

Master, from Manilla towards Salem,

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
N to NNE	Light breeze & pleasant. At 3 A.M. Latitude by the Polar Star 22.56 N. Latitude by the Log at the same time 22.54 N.
NNE to NE	Light winds, very clear, pleasant weather.
Calm	Calm with clear weather.
NE to N	First part calm; middle & latter part moderate & fair.
EN to S	Took two lunar observations.
E to SE	Moderate & fair. Took two lunar observations.
S. PSE to SW	First part, fair & pleasant breeze; middle, cloudy, rainy; latter pleasant breeze & fair weather.
S. to W. SSW to N	Variable winds & weather. middle part rain, thunder & lightning. first & middle part cloudy.
NNW to ENE	Began moderate, ends fine breeze & cloudy.
NE to S	Fine breeze & cloudy.
SSW to SW	Fine breeze & cloudy, sometimes, rain.
WSW	Fine breeze & cloudy.

Valde Bordeletti Journal, in the Ship *Italia*, N. Orme

Master, from Bermudas towards Salem,

Winds.	Weather, Currents, Bearings of the Land, and Remarkable Occurrences.
W.W to W by N	All those malignant winds & weather said above, with thunder & lightning, & rains, disagreeable weather. Purple reefed to
W.N.W to N, Variable	Light winds, pleasant weather. At about 1 P.M. began a very great tide rise which continued all day, so much so that the gulf stream.
N. & all wind the compass N.N.E.	First made, very rapidly. At 2 A.M. steady breeze from the N. At 10 A.M. Thunder, lightning & rains.
N.E to E	Fine breeze, clear & cool,
E to S. & S.W. W to W.S.E	Pleasant breeze & clear, at midnight the wind hauled to the westward, & became fresh, just before noon there was so thick a vapor to the southward, that we did not expect to get the sun by the southern horizon with the sextant. Around the meridian altitude to the northward 110.11 which made the lat. 40.76.
N to E.N.E.	Moderate breeze & very calm weather.
E to S.S.E. S.W. W. N.	Carries an pleasant breeze & cloudy, and calm & foggy, just at noon it cleared away & we saw Race Point, bearing 116.2 N. dist 4 leagues, unquesly the longitude of the ship at noon was 69.58 W. which differs only 10' from our lines of May 10. but diff. is 11°. 38'
N.E All round the Compass.	from our reckoning, At 2 P.M. came too in Salem Harbour.

Journal, in the

Remarks at Lisbon

When we made the land, we were nearly mid-way between Cape Roque and Cape Spichel, the latter Cape being easily known, as it is high and very flat on the top, with a long ridge on it looking like an old wall. We were 36 hours beating to windward before we got sufficiently under the northern shore, having taken, in the mean while, a pilot from a fishing boat; there being generally great numbers of them off this place; the pilotage to Belen Castle was 8 dollars; from thence to Lisbon 2 dollars; the outward pilotage being 6 dollars. We sailed through the northern channel, and came to anchor off Belen Castle; after coming to anchor, Capt. Prince went to the castle, to report the ship, but was not suffered to land before the health Officers had visited. The same evening, we had permission, ^{from them} to land next morning; when we were entered at the custom house by the Vice-Consul; and a new pilot put on board to carry the ship towards Lisbon; ~~she~~ was not carried up among the other shipping, as we had no goods to land.—All your powder (if you have any on board) is taken out at an expense of 6 or 8 dollars; so that it is better to throw it overboard than to report it, if you have only a small quantity, not only on account of the expense, but the detention, as you are not permitted to make an entry at Lisbon, before a certificate is returned of your powder being in the custody of the keeper of the castle Belen; this caused a difficulty with our ship, so that she was not entered at Lisbon, till the third day after her arrival.

All goods imported, or exported, must pass through the Custom-House, which is a very large building; the India-House being near to it, & of the same size. The Custom-House is supposed to be as large as any in Europe, and is well finished. The Exchange adjoins the Custom-House, and is not so large as I expected to have found it; the vaulted roof makes such a continual echo, that you cannot understand a person a few steps from you, though it does not incommodate any persons near to each other.

230.
Nathaniel Bowditch's Journal, in the Ship
At Lisbon

The great number of excise officers, &c. make the port charges considerable. The "light money" is 25 cents per ton, on vessels not taking produce, and 5½ cents on those that load with wines & other Portuguese produce.

The streets of Lisbon are very dirty, all their filth being emptied into them, and the passenger must take care not to have a tub of suds, or something worse, thrown upon him.

About 120 days in the year are set apart for the worship of their saints; on these days, and on sundays, the custom house is not opened, and of course not much business is done. The streets are always infested with beggars of various denominations, some lazy drunkish scions, others real objects of charity; their unfortunate manner of demanding alms is really a very great nuisance.

While at Lisbon, I observed the variation of the compass, on board the ship, in the latitude of $38^{\circ} 41' N.$ on the 27th April 1796, Castle Belém bearing per compass $N. 77.5 W.$ and a Passage in an elevated situation on the North Shore $N. 22.38 W.$ The variation being then $19^{\circ} 21' W.$

The tide runs very strongly in the river Tagus. On May 5. 1796. I observed the time of low water $7^h 15^m A.M.$ the moon being in the meridian at $10^h 26' A.M.$ daily difference of coming to the meridian $42'$. Whence, by allowing the time of high-water to be $6^h 12'$ later than the time of low-water, the time of high water was at $1^h 27^m P.M.$ which is $3^h. 1^m$ past the time of the moon's setting. But as the river Tagus runs with considerable rapidity, it is probable that the ebb continues longer than the flood, & of consequence this time ought to be decreased a little; perhaps it could not ever much from the truth, to say that on the full & change days it is high water at $2^h 30' P.M.$

At Madeira

The trade of the Americans to the Island of Madeira has been very great for 2 or 3 years past (from 1793). In the year 1795 there were shipped 7000 hampers of wine, in American vessels, which is nearly half the quantity exported from the Island.

The variation of the needle at Madeira, (Funchal road) was observed in 1703, by Mons. Cottignon $4^{\circ}.6'W.$ In 1720 by Father Loarre $8^{\circ}.15'W.$ In 1758 by Thomas Rose $15^{\circ}.12'W.$ In 1761 by Robert Bishop $16.60'W.$ In 1769 by Mons. de Fleuriel $15^{\circ}.0'W.$ In the same year, on board the British Ship Devonstaffer $16.30'.$ In 1788 by W. Johnson $18.0'W.$ I made several observations between May 16 & 19th 1796, but they differed considerably, by a morning azimuth, in Funchal road, in the latitude of $32^{\circ}.37'N.$ the variation was $20^{\circ}.26'W.$ The observation of May 19, gave only, $16.59'W.$ In the evening after leaving Funchal, being in the latitude of $32^{\circ}.12',$ & $8^{\circ}.5'W.$ of Funchal, the variation was $21.21'W.$

May 15. 1796. I observed at noon in the latitude of $32^{\circ}.50'N.$ at which time the middle of the Island of Porto Santo was $7\frac{5}{10}$ miles South of the shore, & $1\frac{6}{10}$ miles of long. W. as I found by observing the bearings of the land, at the extremities of an assumed base line; hence the latitude of the middle of Porto Santo is in the latitude of $32^{\circ}.57\frac{1}{2}'$. Which agrees with Norre, who places it in $32.58'N.$ In the requisite table, it is printed 32.584 ; but in a new chart published in the collection of Laurie & Whittle, in May 1794, said to be copied from the Spanish surveys taken by Don. T Lopes, deduced from the observations of the Chevalier Fleuriel, the latitude is put down $33^{\circ}.18'N.$ differing $19\frac{1}{2}$ miles, from what we have above determined it.

Nathaniel Bowditch's Journal in the Ship

Memoir on the Latitude and Longitude of the
Islands of Trinidad,

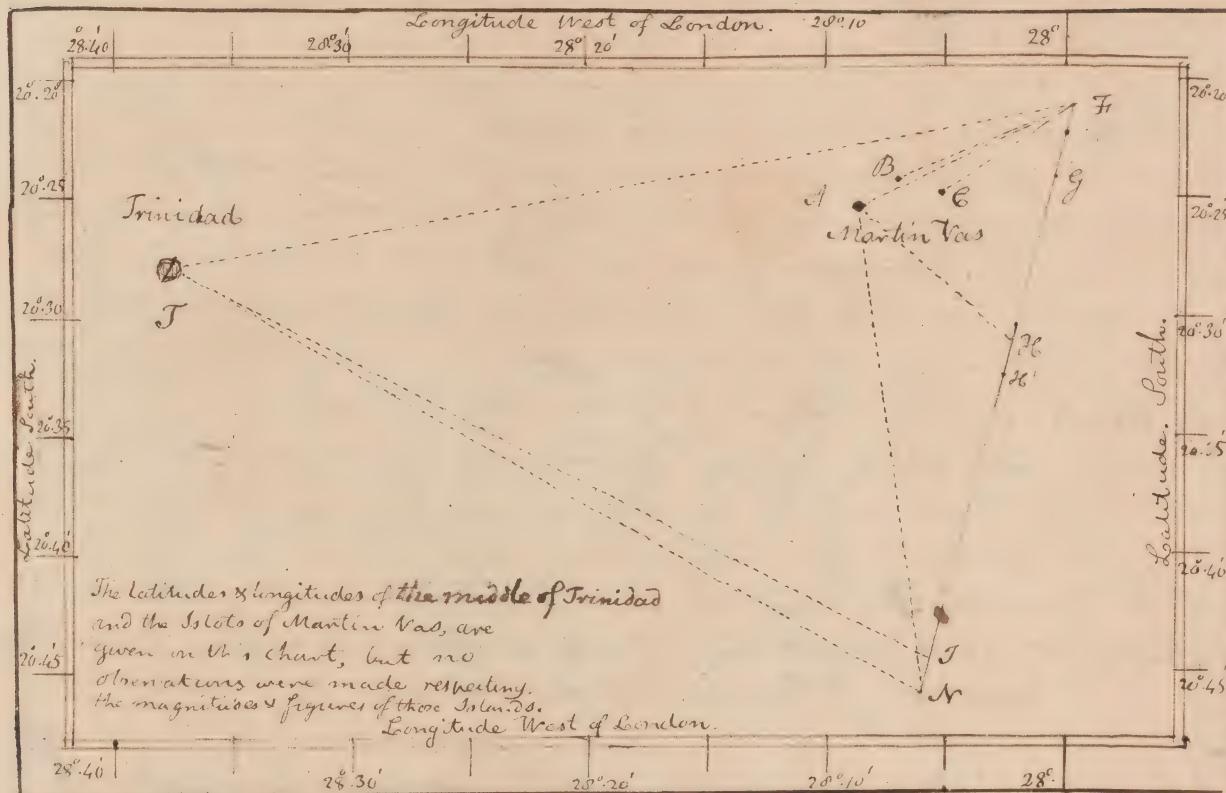
July 1. 1796, at day break we discovered the Island of Trinidad; which, by the mean of several good lunar observations, we make in the longitude of $28^{\circ}39' W.$ which is nearly 2° less than in Moore's Epitome, and in other books and charts we had aboard; this great difference induced us to take other observations while in sight of the land, all of which agreeing very well with each other, left no doubt of their accuracy.

The result of the several observations taken near Trinidad, is given in the annexed table, which makes the longitude at noon $28^{\circ} 6' W.$ by our Trigonometrical operations (mentioned in next page) it was found that the Island of Trinidad was $33'$ W. of the ship at noon, consequently the long. of the Island is $28^{\circ} 39' W.$ More

	Long. of Ship at noon July 1. 1790.
By Obs. 00 June 27. brought on by the log	28.42 W.
Do. 00 June 27 " " 0° - -	27.59
Do. 00 June 29 " " 0° - -	28.12
Do. 00 June 30 " " 0° - -	27.44
Do. 00 July 1. in sight of Trinidad	28.01
Means, gives the longitude of the ship, at noon July 1. 1790.	28.6 W.

To determine the latitude of the ship at noon, we had two different observations, one of the Moon, the other of the Sun. The moon came to the meridian at 8^h. 32^m A.M. when the alt. of her lower limb was 54°.44', the correction for semidiameter was + 16.37, Dec. - 4'.3"; D's horizontal parallel 60°.13", consequently her parallel in Alt. less refraction = 33°.87", hence her correct central altitude 55°.30' $\frac{1}{2}$, her declination being then 14°.1'.30" N., consequently the latitude was 20°.28' S. at this time we were nearly on the parallel of Trinidad. By bringing this lat. on to the log, I found that it made the latitude of the ship at noon 20°.45' S. differing only 1' from the sun's meridian observation. For, the observed alt. of the Sun's lower limb was 45°.59', corr. for Dec., Dens. & Refract was + 11', the declination was 23°.4' N. consequently the latitude of the ship 20.46° S. And as the Island was then 10' N. of the ship (by our survey) its latitude must be 20°.28' S.

In the morning in the latitude of $20^{\circ} 21' S.$ observed the variation by two sets of observations (being then west 12° leagues E of Trinidad) the mean of which made the variation $2.36 W.$



Observations taken for constructing this chart

From the first making of the land till noon, the ship was sailing upon a wind, S by W per compass, with a point leeway, making S by W 2 M per compass, which is the direction of the line F G H I N. At 6.53.43 A.M. apparent time the ship was at F; at 7.20.42 at G; at 8.59 at H, at 11.43.25 at I; and at Noon at N. The distances sailed by the ship during these times were measured by the log, which gave the lengths of the lines F G, F H, H I, and at each of those places the bearing of the Island of Trinidad & the Islets of Martin Vass were observed; and from hence the bearing and distance of each of them from the ship was obtained; consequently by knowing the latitude & longitude of the ship, at that time, we obtained the latitude & longitude of each of those places, the following is the result of several calculations.

Trinidad	Latitude	Longitude
	20.28 S.	28.39 W. of London.
Islet of Martin Vass greatest A.	20.25 $\frac{1}{2}$	28.4
do. smaller B	20.24	28.7
do. do. C	20.25	28.5

Since the above observations were made, & published on the American edition of Mee's Epitome, I have seen the observations of La Perouse on this places which agree nearly with the above.

Nathaniel Bowditch's Harbour Journals

Monday Oct 3. 1797 Being in Manilla Bay, a boat came onboard from John Stewart Kerr, who calls himself an American, saying he was born at Philadelphia; at 2 P.M. the government boat came aboard with two revenue officers, at 6 P.M. came to anchor in Cavite; next day weighed anchor & went farther up the river, and came to anchor in 2 fathoms mud bottom, the outer point of Cavite bearing N. E. & the large church of Cavite NW $\frac{1}{2}$ N. All the shipping were at anchor at Cavite, as it was about the breaking up of the monsoon, it not being customary to anchor off the bar of Manilla, till November, when the N.E. monsoon is well set in; Cavite is about 3 leagues from Manilla, passage boats are putting between these places daily, but they are very inconvenient. Next day we went in the ship's boat to Manilla; on our landing at the Custom House we met Mr. Kerr, who accompanied us, as Interpreter, to the house of the Governor. This visit must be made immediately after you come ashore, - Mr. Kerr brought himself into a difficulty, a year or two after, by carrying an American to his own house, before he had made this visit.

(After waiting on the Governor, we went to Mr. Kerr's house (who at present is the American Consul) and hired one end of it, which was very convenient for shipping goods, as the river ran at the back of it, where the boats could come, & load with merchandise; contracts were made with some China Men for sugars, to be delivered in 5 or 6 weeks, as they could not take it from the pots, dry it, & put it in bales, in less time; some that happened to be ready packed, was purchased & sent aboard immediately. The price we gave was from 5 $\frac{1}{2}$ to 6 dollars, per pound for the first kind. To some of the Chinese we advanced one third of the purchase money, but that was not generally the case. Most of the bags must be examined, by the sound, or else they will apt to turn you off with dark & wet sugar. All goods are weighed by the steelyard, divided into Avobes & pounds, as at Cadiz, the weights here being the same as at Cadiz. They make but very little use of molasses, as the Government does not allow of any distilleries, nor will it suffer any spirit to be distilled from the cane, or any to be imported; of course we were forced to call some New England Rum (belonging to the mate) by the name of Brandy or "Aqua diente"; and the natives were so ignorant of the quality, that they absolutely took it, in preference to the best Cognac Brandy, which was offered at the same price.

The price of Indigo, when we arrived at Manilla in 1796, was from

at Manilla in 1797. ²⁰³

85 to 86 dollars per quintal of 100 Spanish pounds (equal to 103 lbs American), but as the English Ships &c. had nearly completed their loading, and being now purchasing but ourselves, we were able to procure at a less price, or at about 75 or 76 dollars per quintal. Nearly all the Indigo ^{was} purchased of the Natives in parcels from 3 or 4 lbs. to several quintals, it was brought to the house in bags like those in which sugar is packed, there it was emptied in a large tub & inspected. Mr. Kerr assisted in inspecting most of the time; but in a short time we learned to inspect it ourselves, that which is light, when broken, free from flaws of an uniform clear colour is the best; if a few pieces were found of an inferior quality we made them deduct several dollars from the price; but mixed it with the rest; if a large quantity of it was inferior, it was turned aside as ^{is} ~~second~~ ^{third} quality. They are very apt to wet their Indigo just before offering it for sale, which will increase the weight as much as 10 or 12 per cent; to discover whether it is wet, it must be broken, & the piece struck with the edge of your nail, if it leaves a clear copper colour, without rising up at the side of the mark, as if soft, it is probably dry; if a wet piece be squeezed hard in your hand, it will appear cold & damp, even when the outside appears dry; for when they wet it, they take care that the outside of the Indigo shall appear quite dry, by exposing it a moment in the sun. After the Indigo was purchased we packed it in boxes, containing about 150 lbs; the Spaniards generally pack theirs in barrels; Mr. Kerr informed that the Indigo had not been purchased at less than 85 dollars for many years before; when we were there in 1800, we purchased considerable of good Indigo for that price, much better weight is obtained in purchasing Indigo in January & February, as the season is then so dry, that it is impossible for them to keep it in the damp state they could wish when selling it. The annual produce of the colony in 1797 according to the information received from Mr. Kerr, was about 4500 tons of sugar & 400 or 500 tons of Indigo. Pepper is brought from Borneo & other places in Proves.

Manilla is the only free port in the colony; the duties on imports and exports are small; all goods ^{imported} are carried into the custom ^{house} & appraised, and a duty of 6 per cent charged on them; dollars are imported free of duty, but pay 3 per cent on exporting. It is best to enter all your cargo for exportation, otherwise you will be forced to pay the

Nathaniel Boarditch's Journal at Manila

duties upon restipping them; Sugar, Indigo & are exported free of duty. — The 4 pistole gold pieces of Spain, which we estimate at about 15 $\frac{1}{2}$ dollars, pass in Manila for 16 dollars, although the Chinese are averse to taking them for more than 16 $\frac{1}{2}$ dollars, but the Governor issued a proclamation, annexing a severe penalty to the refusal of accepting them at 16 dollars.

They keep their accounts at Manila in Grams, Rials, & Dollars.

12 Grams make 1 Real

8 Reals 1 Dollar.

Their weights are, pounds, catties, arrobes, piculs, &c.

25 lbs make 1 Arroba.

4 Arrobas 1 quintal equal to 103 $\frac{1}{2}$ lbs. American.

5 $\frac{1}{2}$ Arrobas or 137 $\frac{1}{2}$ lbs Spanish or 142 lbs American make 1 picul,

10 Ounces 1 Tale of Gold.

11 Ounces 1 Tale of Silk

9 Ounces 1 Panto of Gold.

22 Ounces 1 Catty.

100 Catties 1 picul.

Each of these ounces being equal to $1 \frac{3}{100}$ ounce avoirdupois which is the weight of 1 Spanish milled dollar.

Fresh provisions are cheap at Manila, Fresh Beef 2 cents per lb. White flour bread about the same as in America in times of peace; Price, 2 dollars per picul (which was reckoned dear). Flour 4 dollars per picul. In the year 1800, all these articles were much higher, owing to the great number of troops.

We purchased a number of tanned hides, to put under the sugar to preserve it, they cost 6 rials per piece, but could not get the same sort in America.

Iron will generally pay a small freight to Manila; the Wine & Brandy we carried out in 1797 did not net the first cost, in the year 1800 it would have netted 400 per cent; a small quantity stocks that market. Those who carry Wine or Brandy, would do well to put it up in small casks of 17 or 18 gallons, it being much more saleable in casks of that size; the cheapest wines are as good for the Manila market, as the best of London particular, procured at Madeira; we had Lisbon Wine, and Shadova

in the Ship Astrea.

suitable for the London market, the former would have sold for 50 per cent more than the latter, whereas the cost of the former was not two thirds of that of the latter. - A few wooden compasses which I bought of King, for 2 dollars per piece, were sold in Manilla for 8 dollars; 2 or 300 would have sold at the same rate, as they were wanted for the gun boats. - Tin plates, Lead, & Copper, will generally pay a freight. A large quantity of old iron, of all sorts and sizes ^{procured from the ruins of Cape St. Francis.} was sold here at an immense profit, being imported in a vessel belonging to Clarke & Nightingale, of Providence.

The city of Manilla is about 3 or 4 miles in circumference, is walled all round, ^{and} ~~and~~ ^{are} ~~canon~~ placed at proper intervals; but we were unable to get much information with respect to the state of the place, as they were shy of giving any information to foreigners. The buildings within the walls are all of stone, and none except the churches are more than 2 stories high, on account of the violent earthquakes which they have generally at the breaking up of the Monsoon; the month of March is when they most expect them; but on the 5th of Nov. 1797, we experienced several violent shocks at about 2. P.M. which came from the Northward & proceeded in a Southerly direction, continuing with violence, nearly two minutes; it threw down a large house ¹ a league from the city, until several buildings, & did much other damage; it was not observed on board the ship lying off the bar. The motion of this earthquake was quicker than those usual in America, as the latter are generally preceded by a rumbling noise, the former was not.

The suburbs of Manilla are very extensive, most of the business is done there, the houses of the wealthier class, are of two stories, built of stone; the poorer sort, live in Bamboo houses with thatched roofs; no house can be built in the suburbs without the particular permission of the Governor, in which the dimensions of the building are stated; fearing, if they were too high, that an enemy might make use of them for attacking the city, as was the case when the English took the place formerly; for one of the churches, near the walls, was very serviceable to them, it has since been pulled down.

There are but few Europeans in this settlement; all the women have a little of the Indian blood in their veins, excepting the lady of the Governor & two or three others, though by successive intermarriages with Europeans they have obtained a fair complexion. The natives (like all other Malays) are excessively fond of gaming & cock-fighting; a Theatre is established for the latter business, ^{from which} the Government draws an immense revenue, & this diversion is prohibited at any other place. Sometimes there are 5000 or 6000 spectators, each of which pays half a rial. A large sum arises from the duties on Tobacco & Coco Nut. Tobacco is prohibited, but if you smuggle any on shore, it cannot be sold for more than the cost in America, notwithstanding the retail price is very high; particular people, licensed by the King, are the only persons allowed to deal in it. — All the natives chew areca & betel, tho' not mixed with opium as in Batavia. This, with chewing & smoking tobacco, makes their teeth very black. The cigars used by the women, and with which they smoke all day, are made as large as they can possibly get into their mouths.

The natives are about as honest as their neighbours, the Chinese; they stole several things from us, but by the goodness of the police, we recovered most of them. On the 2^d Decr. 1797, they broke into the house where we lived, entered the chamber where Capt. Prendergast & myself were asleep, and carried off a bag containing 1000 dollars, without awaking either of us, or any of the crew of the long boat, sleeping in the adjoining chamber. The guard discovered them as they were escaping, pursued them, & they, in endeavouring to escape, ran afoul of a large boat, which upsetting them, the money went to the bottom, and what was worse the bag burst, & the money was all scattered in the mud, where the water was 8 feet deep; however, by the honesty of the Captain of the guard most of it was recovered; the thieves were caught, and when we were there in 1800, Mr. Kerr informed us that they had been ~~whipped~~ & were to be kept in ~~scare~~ custody several years.

The same day another robbery was committed, equally as daring. The day before the Indigo was shipped, the second ^{mate} came ashore with several of the people to see it safe aboard; the boats we had provided not taking all of it, we sent the remainder aboard with a black fellow to guard, who was esteemed by Mr. Kerr as an honest fellow; but ^{he} had been continuing to steal a couple of boxes. When the barge, containing the Indigo, had passed the bar, a small boat came aboard with two boxes, filled with chips, stones, &c, appearing

in every respect, exactly like those full of Indigo; and pretending that we had put on board two wrong boxes, they exchanged their boxes for two real boxes of Indigo, but in bringing them ashore they were detected, and the Indigo returned.

There are great numbers of Chinese at Manila, but they are all obliged to become catholics. It is from them that most of the sugar is purchased. They trade considerably with China. Their junks arrive at Manila, and San Carlos, and all their goods are deposited & sold from the Custom House; some of their cargoes are valued at the million of dollars, the duties on which amounted to nearly 100,000.

The Chinese, at Manilla, retain all the customs of their country, excepting those respecting religion, and a few other things of small moment. They make use of the Chinese characters in writing, beginning at the right hand of the paper and writing downwards. Their manner of marking down any number, is somewhat similar to the common method used by Americans, ^{in marking boards.} thus the mark for 2 is ||, 22 is ||=, the mark for 3 is |||, 33 is |||=, + +

The cross + placed at the bottom, signifies that the number above it stands in the place of tens, thus + stands for 5, with the cross at the bottom + it stands for 60. There are two sets of characters from 1 to 10, which are alternately used, as it would be inconvenient to mark 22 with the same character all the time.

Thus \overline{X} signifies 400. $\overline{X}II =$ stands for 1423. The character for 100 is \overline{X} .

Examples.

American	32	365	2147	34678	25	115
Chinese	112	11118	11-X1	111181	26	111
	+	81	1111		27	111
					28	111
					29	111
					30	1111

A. Bowditch's Journal in the Ship Astræa

When any numbers are added together the mark of the sum is 共
the character for peck is 十串. A catty is 廿 or 卍. Dollars 又.

Arrived 3

Examples.

Chinese.	American.
1 = X	124
及 +	
1 = +	136
及 +	
1 X =	142
及 +	
共	
X = 11	Sum is
及 +	402
11 = 11	Pecul. Catties
及 + 廿	89. 55
11 = 11	
及 + 又	189
	Dollars.
11 = X 5	2345
及 + 廿	Catties
11 = 11	892
及 + 3	Arobes
11 = 11	1786
及 + 廿	Pecul
1 X 5 = 11	145989
及 + 廿	

The annexed Chinese paper is an account of sugar presented to us by the Chinese.

at Manila, and the Isle of France,

241.

241

Magnetical Observations taken on board the Ship Harry,
in her voyage to the Isle of France in 1795.

Outward Passage

Time	Lat.	Long.	Variation.		Time	Lat.	Long.	Variation.	
			Morn	Even				Morn	Even
1795	North	West	West	West	1795	South	West	West	West
Jan. 25	33.33	45.45		9.0	March 10	19.47	28.51	-	2.50
27	28.59	35.48		13.02		20.38	28.48	3.8	3.61
	-	-		A 10.46		21.3	28.37	-	2.81
31	29.10	28.67		15.00 A		21.32	28.52	2.25	
Feb. 6	27.0	23.38		15.44		23.13	24.11	-	3.81
	26.14	22.54	15.46			23.43	23.40	2.31	
8	24.42	21.57	-	17.56	18	28.26	28.3	3.58	
	-	-	-	16.06 A	16	26.46	26.53	3.46	
	26.07	21.47	15.14		18	28.40	28.28	5.28	
10	21.24	21.38	12.58			29.27	14.38	-	7.43
11	20.7	21.38	-	11.41		30.3	13.29	2.12	
12	19.21	21.29	-	13.22		34.60	7.23	10.7	
-	16.15	21.29	11.48			35.5	5.55	-	11.10
13	15.28	20.43	-	12.02 A	April 1	35.38	6.26	-	13.40
-	-	-	-	12.09		35.51	2.36	11.9	
14	13.25	20.30	-	11.54		35.50	2.52	-	14.38
-	12.14	20.0	11.39			36.12	4.21	-	15.19
	16	9.47	20.10	-	11.48	36.24	4.52	16.5	
	-	-	-	11.45 A	4	37.20	7.30	16.57	
	8.51	20.10	10.50		5	37.57	8.46	-	17.33
17	6.39	20.43	10.49			38.19	9.13	0 18.22	
18	5.46	20.49	11.60			38.4	13.5	-	20.26
20	3.16	21.22	10.47	10.47		38.4	18.54	-	23.63
23	0.22	24.2	8.29			38.45	19.32	26.33	
26	0.4	24.13	-	8.46		38.46	21.37	-	26.48
South						38.47	22.48	25.3	
0.31	24.33	8.20				38.47	23.56	-	25.9
						36.57	27.02	-	26.26
25	1.04	25.0	-	8.27 A	13	36.24	28.54	-	28.3
26	2.32	24.49		7.05		36.52	29.34	26.30	
	3.26	25.07	6.26			36.58	30.68	-	28.3
28	5.18	26.49		5.24		36.83	34.51	14.5	
March 1	7.30	27.68	4.55			36.1	38.58	-	28.48
2	7.59	27.49		4.14		38.57	40.6	-	28.47
-	-	-	-	4.28 A		36.46	42.55	28.4	
	8.37	-	3.22			35.44	47.28	27.6	
3	9.27	27.50	3.33			35.44	47.28	27.6	
4	10.19	27.47	3.46			36.10	47.50	28.12	
6	13.13	26.53	3.54			36.31	51.21	27.59	
8	17.16	26.0	3.14						

Nath. Bowditch's Journal,

Magnetical Observations in 1795.

Time.	Lat.	Long.	Variations morn	Variations eve.	Time	Lat.	Long.	Variations morn	Variations eve.
1795	South	East	West		1795	South	West		West
April 27	35.79	54.0	26.3		May 7	7.10	21.40	10.12	
28	34.46	55.32	25.0		18	7.0	22.50	8.4	
May 3	31.33	57.25	22.52		19	- 6.53	23.38	-	8.2
5	30.51	57.36	20.63		21	6.39	24.22	-	7.50
7	26.07	58.25	17.9	13.36	21	6.19	25.14	6.09	
8	22.16	58.31	-	13.36	22	4.49	28.22	-	6.83
					23	4.12	29.02	4.46	
						2.29	30.12	4.82	
						1.43	31.02	-	5.16
						0.54	31.44	3.14	-
						North			
						0.08	32.36	2.18	
1795						0.32	32.56	-	3.13
Sept. 30	21.64	53.46	13.59			3.08	33.41	-	3.50
October 1	23.34	51.32	-	16.20		4.01	35.18	2.49	-
	24.23	50.65	16.59			7.25	37.39	1.14	
3	26.12	48.40	618.40		30	8.05	38.14	-	3.33
			21.48			8.53	38.49	0.06	-
4	26.41	47.50	-	21.12	December 1	10.02	39.46	0.53	-
	27.14	47.18	20.16		2	10.46	40.15	-	3.12
5	27.37	46.56	-	21.26	3	13.07	42.15	3.23	-
					5	15.29	44.18	-	1.08
	28.22	46.07	24.38		7	16.27	45.16	0.55	
6	28.31	45.19	24.0		7	18.47	48.10	-	1.44
					9	21.33	51.24	-	2.47
7	28.45	44.37	-	28.13	11	23.54	54.09	-	3.13
8	29.38	42.38	-	24.24		24.26	52.51	1.20	-
9	29.43	40.13	23.59		15	27.56	58.47	-	2.25
10	30.3	38.36	24.28			28.45	59.43	1.30	-
12	30.59	39.05	-	26.26	16	29.30	60.11	-	3.56
11	30.42	32.17	-	25.42	28	33.29	60.15	5.49	
18	33.32	28.19	28.58		29	34.0	59.57	-	7.17
17	34.03	22.18	-	25.50					
21	35.22	22.07	-	25.71		34.2	60.5	8.55	
				23.50	1796 Jan. 1	38.51	62.27	-	7.07
27	28.48	9.13	20.50						
				20.18					
28	28.38	9.07	-	20.19					
	28.29	8.31	18.6	-					
29	28.0	8.31	19.30						
31	25.04	7.19	-	19.54	1795				
Nov. 1	26.09	6.50	-	19.14	May 15	20.51	55.36	8.16.4	
	23.19	6.23	19.57						
2	22.23	5.21	19.21		May 22	0°	8°	18.5	
3	20.44	4.10	18.21		June 17	0°	8°	18.33	
4	20.70	3.30	-	18.40					
5	18.18	0.15	-	16.32					
7	17.38	0.37	-	15.26	1795				
9	16.45	5.42	-	14.16	July 31	20.58	-	18.33	
12	10.13	11.53	-	13.49	Aug. 7	0°	8°	15.28	
13	9.19	13.42	-	12.35					
15	7.49	17.17	-	12.9					
16	7.23	19.36	-	10.19					

Observations made in the
Island of Bourbon.

At St Denis on board the Ship.

Mean of the three obsrv.

At St Paul's.

Mean

At St. Bona.

Mean

-43-

Nath'l. Boudetel's Journal

All the observations given in the two preceding pages were made by observing the sun's azimuth, except those marked A which were by an amphitheatre, and those marked D which were by the moon. The longitude is given as determined by many lunar observations, proportioning the difference between a preceding & following observation; and probably the longitude is never more than a degree from the truth. When the westerly winds blew considerably, the mean of 12 or 15 observations were taken, and never less than six. I esteem the observations given on these pages as more accurate than those in the preceding journal to Manilla.

Soundings on Brown's Bank.

We had soundings on Brown's Bank in 1796, and at the same time took several lunar observations; the observations were these,

1796 Jan 5. Lat 42° 41' N. Long. 65° 0' W. 118 fath. green shells.
6 Lat 42° 46' N. Long. 65° 23' W. 60 fath.

The latitude was obtained by a mean at altitude of the moon, & mention these soundings because the English Chart we had on board did not lay the bank so far to the southward, although the American charts did.

While at Breston I observed the Latitude of St Denis, St Paul's, and St Benoit.

St Denis (Government Slave). Latitude by Obs. of June 28. 1795.	20° 51' 48" S	
8°.	July 15. 1795.	20° 51' 33"
	Mean.	<u>20° 51' 39" S.</u>

St Paul's (in the Bay, 3 miles from shore)	Obs'd July 31. 1795	20° 58' 33" S.
	Aug. 1. 1795	20° 57' 28"
	2. 1795	20° 59' 13"
	Mean	<u>20° 58' 25" S.</u>

St Benoit. (one mile from the shore)	Observed Sep. 11. 1795	21° 0' 19"
	12. 1795	21° 0' 37"
	13. 1795	21° 0' 24"
	Mean.	<u>21° 0' 27"</u>

Take another observation at St Benoit Sep. 9. but it made the latitude 3 miles greater than the other & I concluded that it was the ill-advised part of the instrument.

244
Nath^o Bowditch's Journal.

Longitude of St. Paul's in the Isle of Bourbon, on board the ship, in the road, by an eclipse of the Moon, comparing the beginning & end with the times in the Nautical Almanac. Beginning 55.14.15 E. London
End 55.12.45

By a lunar observation July 31 55.36

Longitude of St. Benoit by a lunar obs. of CC. Sep. 19. 1795 55.49 E.

Longitude of St. Denis by ditto May 15. 1795 55.57 E.

Latitudes of several places from 1795 to 1800.

Cape Ann light houses 42.40° N. At the time of making this observation we were not exactly in the parallel of the lights, there may therefore be an error of 1 or 2 miles.
Peak on Prince's Island Straits of Sunda.

2°	Crocato	ditto	6.8 S. Marked erroneously 8.6 in Cook's Voyage
D°	Tamarind	d°	5.56 S. Two observations
D°	Cap	9°	5.58½ S. Two observations
D°	Button	8°	5.59 S
D°	Two Brothers		5.8 S.
	Lucepera		3.11 S.
	Pulo Landa		8.40 N.
	Monseigneur Island (Lana See)		4.24 S.
Three islets near the S.E. of P. Lant.			
	Too northernmost		4.3 S
	Southernmost		4.07 S.
	Great Pulo Lant	N. P.	3.8 S.
Three alike Islands (Straits of Macassar)			3.36 S.
	Basilan (Middle)		6.25 N.
Straits between Basilan & Mindanao			6.40 N.
Guzayan Islands Northernmost			9.40 N.
Negros (South Point)			9.8 N.
Quinileban Island, lying between the north parts of Panay and Palawan, the northernmost of the group			11.25 N.
Cuyo Island to the south of the above			11.00

Dangerous shoals on which the sea was seen to break, marked 8 fath. bank on some charts, at 7 or 8 leagues distance from the N.W. part of Paracel, its latitude being nearly 11.20 N. It was seen at 6 P.M. & we had a good observation the preceding noon, which, carried on by the log, would make it in that latitude.

Islands lying near the south point of Mindoro.

Mindoro (Mount Gilin)	Westernmost	12.11 N.
Apo Banks, large rock above water	Easternmost	12.12 N.
go	Smaller delta	12.29 N.
Entrance of Manila Bay		12.39 N.
Goat Islands		12.62 N.
		12.28 N.
		13.55 N.

I observed the latitude of Alicant, in Spain, on board the ship at the common anchoring ground, the result of our observations, with different instruments made at 38.18 N. Mr James Street, who was mate of the ship, also made it in the same latitude. In most books it is marked 38.35 N. And in none (I have seen) less than 38.25 N.

